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INTERNATIONAL

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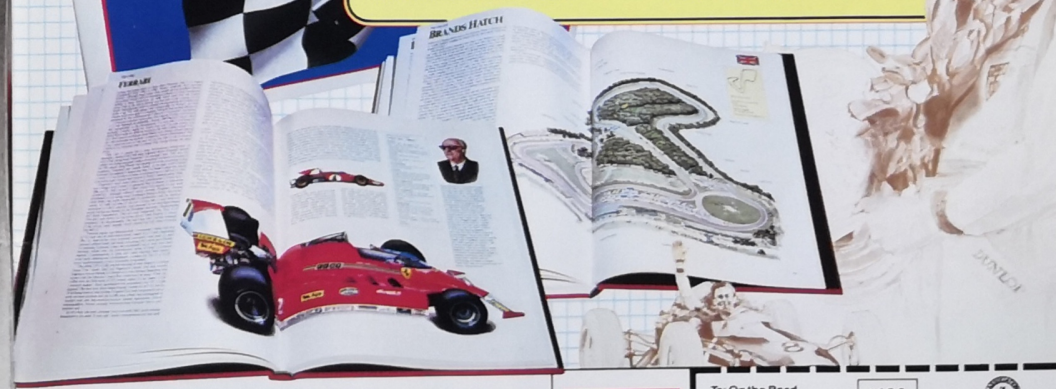

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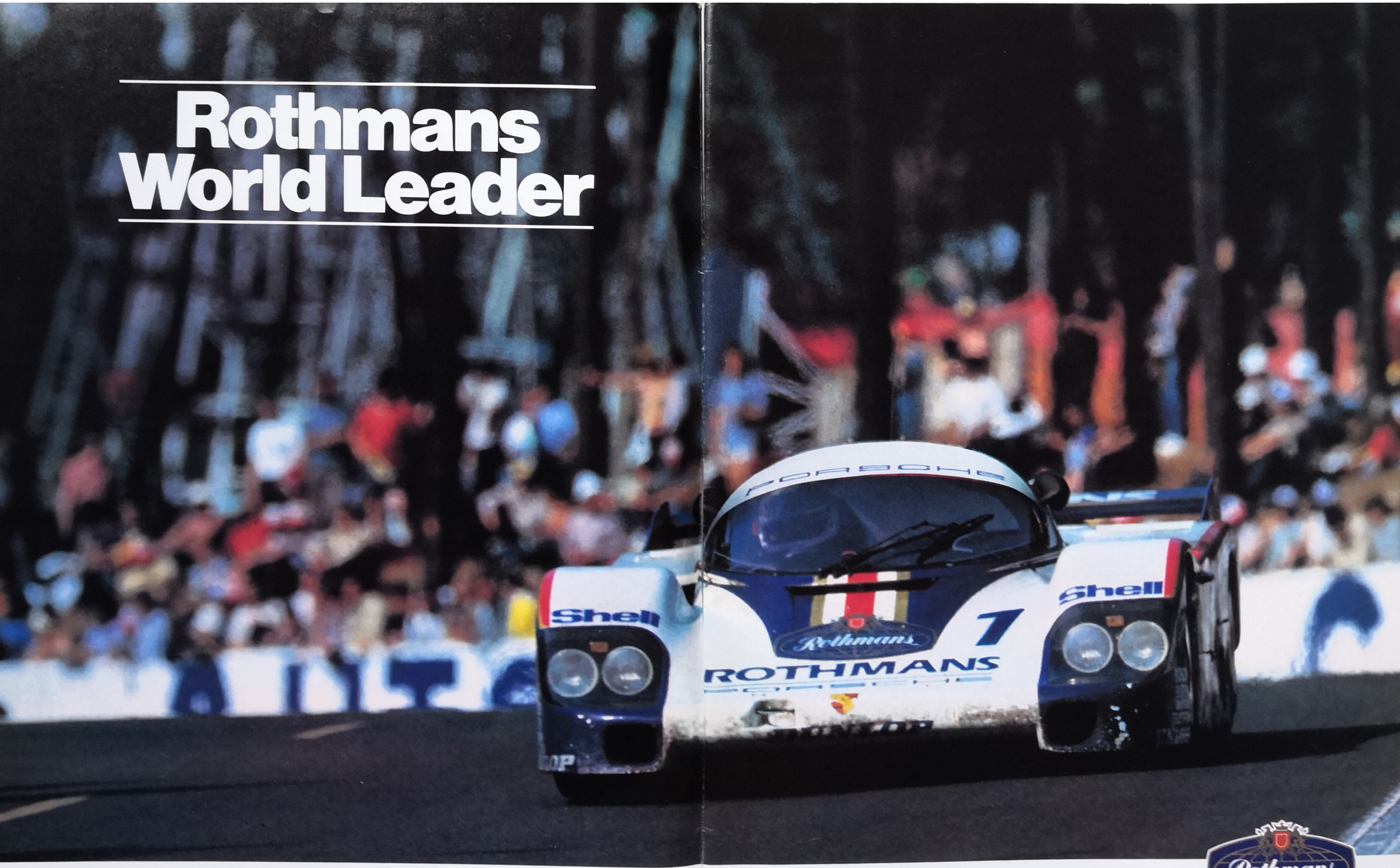

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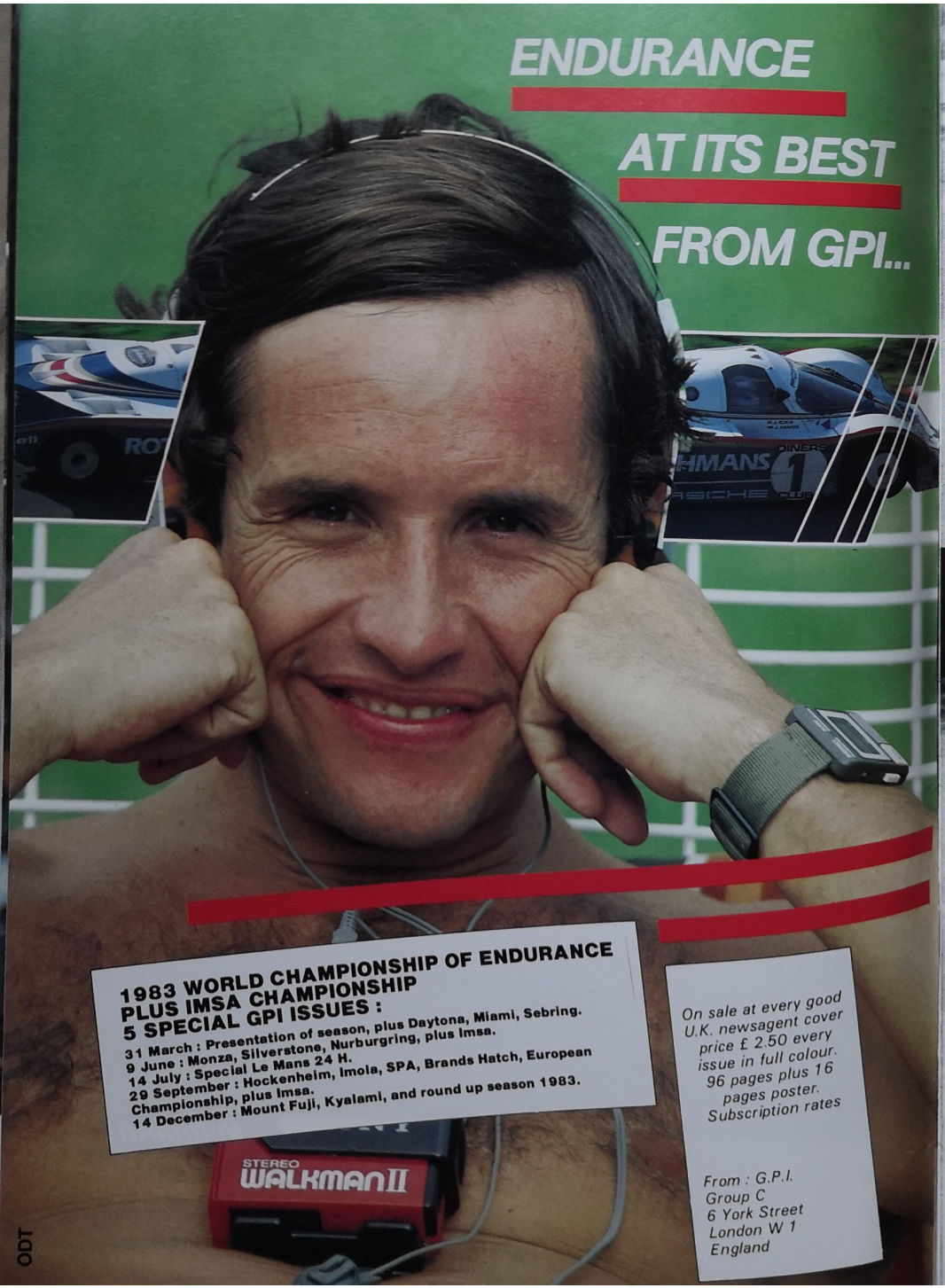

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Cover Photo: DPPI.

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PADDOCK NOTES FROM MONACO

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A BLISTERING RACE

Keke's win cost him not a little. He had to struggle against a tricky circuit, against an engine that kept cutting out on him after the half-way mark and with horrifying blisters on his hands towards the end. In contrast, Derek Warwick and Marc Surer give an insider's view on their own little contretemps.

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PRACTICE

Prost, Arnoux, Cheever, Tambay; once again, Renault, Ferrari, Renault, Ferrari. The turbos had been hugely dominant Thursday afternoon, but 48 hours later the weather put paid to any further onslaughts.

N° 64 (BELGIUM) WILL BE ON SALE ON MAY 25 1983

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THE RACE

The track was still wet at the start and few drivers opted for slicks; Rosberg and Laffite were among those who did and they were soon well ahead. Keke triumphed but Jacques was, alas! unable to make it a Williams one-two.

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THE GLADIATOR

Andrea de Cesaris' reputation is not all it should be. His beginnings in the sport were unhappy and his extreme nervousness is hardly reassuring. But behind that agitated face, in constant motion, there is a quiet, warm and private man, whose only wish is to do well in the profession to which he has devoted his life.

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IN AT THE BIRTH

From drawing-board to track, GPI follows the birth of a car with ambitions for the top: the BMW-powered ATS D6.

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POST CARD FROM MONACO

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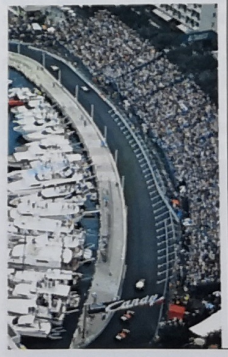
THE GRAND PRIX IN PICTURES



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EXTRA, EXTRA

The biggest surprise was McLarens' failure to qualify and the exclusion of Lauda and Watson at Monaco. They were slow on Thursday and the rain on Saturday gave them no chance of recuperating. A similar fate befell Guerrero's and Cecotto's Theodores during prequalification. Alain Prost, on the other hand, did not come away empty-handed.

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COCKPITS

GRAND PRIX INTERNATIONAL is published by GRAND PRIX PUBLICATIONS LTD 6, York Street, London, W1. Telephone : (01) 486.12.77. Telex : 265709.

Publisher and publishing director: Michel A. König. Associate publishers: Y. Naghi and Graham T. Rogers. Editor in chief: Keith Botsford. Deputy chief editor: Didier Braillon. Contributors: Bob Constanduros, Franco Lini, Giorgio Piola. Correspondents: Maurice Hamilton, Jeff Hutchinson, Mario Luini, Heinz Prüller. Columnist: Keke Rosberg. Editorial assistants (English edition): Vera Frankl, Simon Gaul. Foreign editorial assistants: Xavier Chimits, Frederic Billet, Viviane Pastoursl, Paolo Bombara, Marieke van der Drift, Luis-Ramon Criado. Editorial secretaries: Martine Fréour, Ghislaine Champion, Régis Lacroix. Secretary: Nathalie Rodride. Artistic directors: Marc Tournaire, Pascal Tournaire. Design staff: Jean-Bernard Blanchet, Alain Convard, Joëlle Millot. Lay-out: Cédric Puyanchet, Gilles Lanier. Photographers: Bernard Asset, DPPI, First Line. Financial controller: Ivor Olley.

GRAND PRIX INTERNATIONAL is published in five languages: English, French, Italian, Spanish and Dutch.

Distribution: Comag, Tavistock Road, West Drayton, Middx: UB7 7QE. London office: 6, York Street, London W1. Advertising manager: Robin Goodman. Asst. publishing director: Sarah Redmond. US office: Long Beach Grand Prix Association, 110 W Ocean Blvd, Long Beach, CA 90802. Publishing director: Chris Pook. Advertising manager: Brian Turner. Subscription manager: Jim Michaelian.
Subscription USA: change of address to GPI, 110 W Ocean Blvd, Suite A, Long Beach, CA 90802, USPS 579330. First class: US$72.00. Second class: US$52.00
Subscriptions UK and other (except USA): Grand Prix International Subscriptions, Oakfield House, Perrymont Road, Haywards Heath, West Sussex RH16 3DH.

Editorial and design: O.D.T., 12-14, Rond-Point des Champs-Elysées, 75008 Paris. France. Tel: (1) 225.58.10.

The paddock in Monaco

SOCIAL PEAK?

Picture the scene. Gordon Murray, Brabham's chief designer, leaning on the bar, a bottle of beer in hand, chatting amiably with Leo Sayer, chart-topping pop singer and racing enthusiast. Outside, another 150 or so enthusiasts tip back Kronenbourg, Heineken and 33 Export. The Lotus team mechanics are plotting more mischievous deeds: a tyre rolling contest, or shall we put John Glover's Renault 5 on four chairs?

This is the basic Monaco for many. For while legend would have it that Monaco's reputation was founded on expensive boats, dinner at the Hotel de Paris and dancing at Jimmy'z, the more laid-back version is a beer in hand at either Rosie's or the Tip Top. It's more race orientated, damaging to health, the hours are long but the social side couldn't be bettered.

Rosie's bar is midway between Sainte Dévote and Casino Square, a pink building full of memorabilia and old photographs where the effervescent Rosie tells tales of world champions such as Graham Hill or James Hunt, as well as those of Formula Three drivers whose paddock used to be just around the corner.

The Tip Top is midway between Casino Square and the Mirabeau. While the Rosie crowd are stuck behind the Armco, at the Tip Top, the party extends right across the street. Cans and bottles line the gutter, yet all the drinking detritus will be gone in the morning.

The Tip Top crowd is essentially Anglo Saxon in that you're more likely to find English team mechanics there than Ligier or Osella. On Thursday, Williams, Lotus, Toleman and Mc Laren were all strongly represented, with further presence from Brabham, Arrows, March and others.

It starts to warm up around midnight and continues until the last drinker staggers away at five or six in the morning. It tends to be a kind of El Vinos for the press, yet a journalist can do quite a lot of business down there.

As for star spotting, there's always someone who is someone there. Niki Lauda came and had a whisky or two at the Tip Top last year. Keke Rosberg (who used to be a Saturday night regular having not qualified) came along on Sunday night with Frank Williams after last year's race. Alain Prost and Gérard Larrousse stopped by for a chat on Thursday evening, and Derek Warwick was supported by almost the entire Toleman team this year.

Of course, every now and then, things get out of hand. Taxi drivers didn't much like barrel-rolling contests down the hill; even a Mercedes taxi looks a bit second hand when it meets a metal barrel at Mirabeau, and the police didn't appreciate the temporary chicane made out of potted plants. The cop shop is just up the road, and when things get too bad, a quiet walk past usually calms down the revellers. But a couple of years ago, James Hunt, John Watson and Divina Galica were all caught up in the famous baton charge when the police decided that enough was enough and became rather more violent.

More good-natured this year was one English team which decided that their secretary no longer had any use for her knickers, and the black undergarment could later be seen flapping from the Tip Top sign. Would Goodyear please put it back there!

To do Monaco is to live and party in Monaco, and it need not cost a fortune. While everyone talks about the Tip Top, they actually buy beers in the Cristal Bar next door where they were two francs cheaper this year. Monaco wouldn't be Monaco without Rosie's and the Tip Top. The excellent floor show at the Loews may be fun, but there's nothing more pleasant than a good, late evening outside the Tip Top, and to hell with how you feel when practice starts at six the next morning.

ROLL!

Alain Prost is known as a creature of mischief. His latest victim was our eminent colleague, Bernard Giroux of French television. Giroux had chosen to do a live interview with Alain on Saturday night; the spot he chose was a jetty, for TV loves a good backdrop.

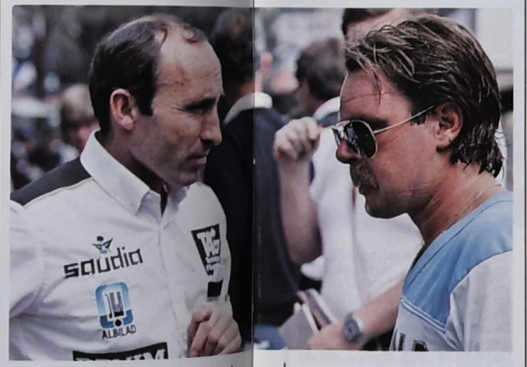
You can guess what happened. Prost couldn't resist pushing Giroux in: just as Giroux, dressed to the nines and mike in hand, was reaching some sententious final remarks. The cameras were rolling. Murray Walker, beware!

A LOST APPEAL

The Williams team received some bad news as it was on its way to Monaco when Keke Rosberg's disqualification from the Brazilian Grand Prix was upheld by the FIA appeals tribunal in Paris. The disqualification was for a push-start after a fuel stop in Rio.

At the root of the wrangle was, as usual, an article in the regulations; in this case, Article 14G, which states, in simple terms, that only an external starter or an external source may be used to start the car within the pits. Because the language of the articles is very broad and not very clear in its definitions of what an 'external source of energy' is, the Williams team have always claimed that five men, a horse or a visiting Martian could just as easily be described as an energy source. It wasn't, as Gordon Murray said at the time, that they hadn't thought about the matter before giving Rosberg a shove; they had concluded, and the Williams lawyer argued, that human beings were definitely an external energy force. They certainly weren't internal!

The FISA tribunal held otherwise. It led Rosberg to say that *"FISA is always ready to put a knife in my back whenever it can;"* and Frank Williams to fall back into an angry silence. The only remaining recourse is an appeal to the courts. Whether or not to do so will be decided this week.



Once again Andrea de Cesaris is responsible for the finest photograph in the paddocks. Here it was Saturday morning at the exit of the chicane and his Alfa Romeo came out of it without too much damage. (Photo: DPPI)

NEW LIVERY

Never one of the world's ten-best-dressed men, Ken Tyrrell had to undergo the second of his sartorial transformations at Monaco this week: not long before the race started. His sponsors, Benetton, had decided that the tasteful green which the team had been wearing since the beginning of the season was insufficiently modern and not in line with the super-fast, slick F1 image they were trying to promote to the world for their huge worldwide clothing chain.

Ken's son Bob, who handles the Italian-speaking and sponsor-charming for the team, was heard to say he didn't believe his father would ever bring himself to wear the new garb.

Brabham, too, were having an enforced change of image: which shows the risks you take when you sign on with the garment men. But as our picture shows, Ken complied.

BREATHTAKING SPECTACLE

There's no denying that Monaco's setting and its atmosphere are unique. But it would be altogether too predictable to describe it as the cream of the grand prix season, to repeat all the usual platitudes about the place and the race. Luxury grand hotels, Rolls-Royces and Lamborghinis, the stars of the jet-set parading themselves with feigned reluctance before the cameras, we've seen it all before, it's been part of the show for years. Monaco's razzmatazz is not the point.

Once the cars are on the track, Monaco's magic surroundings fade into insignificance. For us, Monaco means a chance of seeing the best drivers in the world imposing their will on their superb cars, as if trying to break wild horses. But, they say, you've got to work for everything you get and in Monaco, unfortunately, that's only too true. Monaco, first of the street circuits, is beset with problems on account of its size: difficult access, pits without garages, and cramped, dangerous pits, all too readily accessible to the rich and famous, making them an impossible place to work. Add to this the fact the authorities are all too keen to flex their muscles, and you begin to get the picture. To cite just one example: one agency photographer spent a good part of the day in the cop shop; all he was guilty of was trying to do his job properly.

Don't get us wrong: we're all for the Monaco Grand Prix, and we want nothing more than to see it continue for a long time to come; but there is a feeling that it may not do so. If the Automobile Club of Monaco really wants to carry the day, it should revive the hoary old project of building a new track. All that's required are a few modifications, which would allow the cars to overtake, without, inevitably, finishing up on the barriers — as Mansell, Alboreto, Boesel, Winkelhock, Warwick and Surer all did this time. And a little imagination. The spectators would be the first to benefit. The breathtaking spectacle of seeing the cars pass within a hair's breadth of the barriers would no longer mask all the other known and out-dated limitations of the circuit.

G.P.I.

MICHELIN'S POINT OF VIEW ON COMPETITION

Today, Michelin can boast a roll of honour unprecedented in the history of motor sport, because it covers all the major car and motorcycle categories. Many of the most prodigious races, and a large number of World, European and national championships have been, or are being, won on Michelin tyres.
So, nearly a century after having been the first to fit pneumatic tyres onto a car, Michelin is proving on the tracks that it is still in the forefront of technical development and quality.
In the pioneering days of the first automobiles, Michelin's aim was primarily promotional — to show the superiority of the pneumatic tyre over solid tyres, and to make Michelin's name known. This objective appeared to have been attained by the start of the First World War, when Michelin's sporting activities had to be interrupted for several decades.
Michelin came back into motor sport in the early 1960's, but for quite different reasons. The X tyre, first ever radial tyre, produced by Michelin in 1946 proved an enormous success due to its incomparable advantages over conventional tyres.
When working with a production car it is not always easy to isolate the different factors which contribute to a tyre's performance. Because one is limited by all the constraints imposed by that car: handling, comfort, noise, weight.
To appreciate to the full the tyre's capabilities in the most straightforward and rational way, there is no better test-bed than the racing car, the basic aim of which is to hold the road in the most severe conditions imaginable.

The primordial element?

For Michelin the competition tyre is above all else a product very closely linked to the technical concept of the production tyre — in car racing, that is to say — to the radial production tyre. Though materials are always evolving the philosophy remains the same. Firmly based on the basic production tyre without forgetting the man permutations of profile, patterns and rubber mixes to suit all the variations of surfaces — mud, stone, snow and ice during rallies, the long high speed bends of F.1 racing, composition of the banking, weather conditions etc.

Michelin on the track

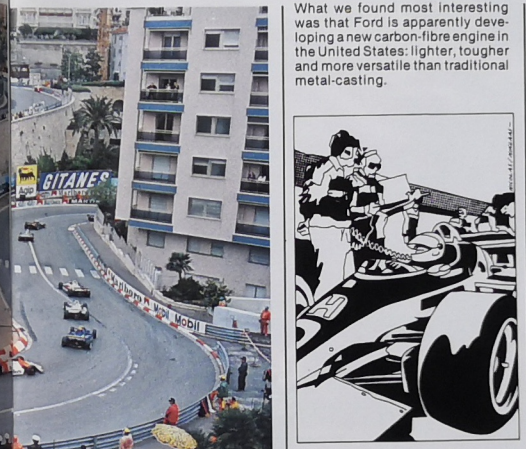
A victory in the sporting field brings renown not only to Michelin but also to all those who put their confidence in the tyres. All competition performances are well documented. Thus the pressures, temperatures and wear of tyres are recorded, as are the state of the car, timings, weather conditions, the road surface, drivers' remarks and so on. All the information gradually compiled in this way allows the engineers to check the performance of a tyre and to confirm whether their development programme is moving forward.
In the world of Formula 1, the results speak for themselves: During the 1981 and 1982 seasons, Michelin won an average 2 out of every 3 Grands Prix.
In 1983, first Grand Prix, first win, with Nelson Piquet winning on home ground in a Brabham. This was followed by a double at Long Beach with John Watson first and Niki Lauda second in their McLarens. In the third Grand Prix, in France, Michelin took the first three places — Alain Prost (Renault), Nelson Piquet (Brabham) and Eddie Cheever (Renault).
At San Marino a driving error caused victory to elude the radial tyre. Prost however came second. This makes him equal leader with Nelson Piquet in what looks like continuing to be an exciting 1983 season.
In very different climates and fitted to very different cars, turbo and non-turbo, the Michelin radial solution has shown remarkable mastery.

F3: THIS TIME IT'S MICHEL

A couple of years from now there should be a pair of Ferté brothers racing in Formula One. Tradition would have it that winning the F3 race at Monaco is a sure passport to the top, and the winner for the past two years has been Alain Ferté, who is now racing in F2. This year, the family fortunes were upheld by younger brother Michel, who started from pole position and was never headed throughout the 24-lap race. A misfire might have deprived Michel of victory, but a last-minute plug change solved that problem.
Michel Ferté's Martini MK 39 led a host of Ralts to the finish line, the closest being the VW-engined car driven by the Dane John Nielsen, who had shared the front row with Michel. Nielsen's challenge lasted a third of the race, but faded thereafter.
Third was Irishman Tommy Byrne who had a number of F1 races for Theodore last year but has since gone back to F3. On the opening lap, he slipped from third on the grid to fifth, but by lap 4 he was back up to third again, just holding off Pierluigi Martini's Ralt. (His father, Giancarlo, will be remembered for a brief race at the Race of Champions a few years ago: brief because he spun off during the warm-up lap!)
Amongst the 20 qualifiers (and 21 didn't make it!) was GPI's Allen Berg who did well to qualify fourteenth on his first drive at Monaco. Sadly, his race didn't last too long: he tangled with Italian driver Paulo Giangrossi on the second lap. Luckily, neither driver was hurt.
Amongst the missing was Ayrton Senna, the man dominating the British F3 championship and already much sought by several F1 teams. He apparently decided that he would risk his near-perfect record by racing at Monaco and saw no reason to do so.

IMAGE CHANGES

Courtauld's image in England is of a big textile firm which shuts down the mills in the industrial North and throws people into unemployment. Now, a modest decal on the Tyrrell car is an attempt to change that image, for Courtauld's also makes carbon fibre, which is a by-product of the burning off of man-made textile fibres.
Besides sponsoring Tyrrell, the textile giant also provides carbon-fibre to a number of other teams, including Alfa Romeo: in most cases, indirectly, through suppliers.
What we found most interesting was that Ford is apparently developing a new carbon-fibre engine in the United States: lighter, tougher and more versatile than traditional metal-casting.



NO RISK

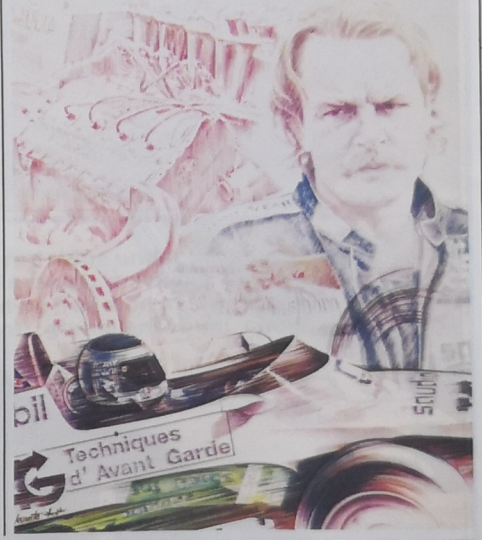
A generous impulse led the Monaco Automobile Club to create a Graham Hill trophy to honour the driver whose name is so indissolubly linked with Monte Carlo.
So far so good. Now the bad news. The trophy is to go to the first driver to equal Hill's five Monaco victories whether or not consecutively. All victories since 1976 will count. Note the date and the words 'consecutive or not', for effectively they deprive Lauda on his two Monaco victories.
So far as we know, in the entire history of the sport, only two drivers have ever won five grands prix at one circuit: Jim Clark in Great Britain and Hill you know where. As dirvers' careers are considerably shorter nowadays, you can bet an awful lot of boats will tie up in the Monaco harbour before anyone lifts this trophy. Why not create a No-Risk Cup?

ANNIVERSARIES

It was 25 years ago that Colin Chapman came out with his first grand prix car for the race at Monaco. He turned up with two Lotus 12s: one each for Graham Hill and Cliff Allison. Hill was to win the Monaco race a record five times, but at that first race, it was Allison who finished sixth and earned Lotus their first ever F1 points.
It wasn't until two years later that Stirling Moss provided Chapman with his first victory at Monaco: from then on, a long string of victories marked Lotus' participation in the Monaco GP. Their record in this department as in many others, is second only to Ferrari's.
In fact, this was the Italian team's 350th race in the World Championship. Since the championship was established, there have only been 28 grands prix without a Ferrari presence and Ferrari have won 85 times, the most recent victory being at Imola a fortnight ago.

SHOW AT MONACO

From May 7 to 15, Michel Lecomte, who did our inter-season cover (No.58) shared an exhibition with the Japanese photographer Bill Tamama. No premiere, however, as Lecomte has had an annual show there ever since 1969, and Tamama since 1972.



Many people refused to believe in him, but Keke Rosberg had long deserved the laurels which he won at Monaco: and that despite the pain and the troubles which beset him before he assured his victory. (Photos: DPPI)

A BLISTERING RACE

There was a red ridge under his eye, his hands were blistered, his head, normally steady as possible, wobbled; but he had won at Monaco. Keke had proved his point: given an equal chance, he's still champion.

by Keith Botsford

Some twenty laps from the end, the Williams Tag motor home was a cheerful place. Young Sultan, aged all of seven or eight, was there with a spare Rosberg helmet on his head, the television was on: you could have been in a drawing room. Their man was in the lead. Then Jacques Laffite dropped out. I murmured something to the effect that Keke looked to have something to spare: and was snapped at: wasn't that when the worst things happened? Suddenly, one realized again that in racing, nothing is sure. And indeed, Keke had his problems: *"About half way through the race, my engine began cutting out at least once a lap. It's the same problem I've been having — and so has Jacques — all along. That was allright, as long as it didn't get worse. But in the past, it has got worse; so in the back of your head there is a question and that question is no help. I couldn't exactly let up, because after their tyre changes, Prost and Piquet were definitely within range. It was no time to relax. "Then I came into the Piscine* (the rather-sharp right hander down by the port) *and my engine cut out completely, just as I was changing gears. Well, when that happens, and you're going fast, as you go at that corner, you know you're in for a big one. And that's what I saw coming. "The only thing I could do was lift off the clutch and bump-start the damned engine; when I did that, the rear wheels locked and I almost went into the rails. Luckily for me, the engine revived and I just made it around. But it was as close as I like to be."*

So much for the Perils of Pauline. The rest of the race may have seemed easy to viewers in their cozy armchairs back home, but at the track it was nail-biting time for most.

A few laps from the end, I had made my way back through the Monegasque madness (people like limpets clinging to every available pipe or scaffolding) to the Williams pit. Frank Williams was on the pit

wall, the corners of his mouth turned down in anxiety like an upside-down Cheshire cat. Behind him, the ever-jovial Williams mechanics were readying themselves to hoist the Union Jack and the green Saudi flag. Suddenly Frank looks up and shouts: *"Not yet! Not yet!"* A superstitious lot, Formula One constructors.

Then it was all over. Keke came by the pits, his hands in air in the traditional gesture of triumph; his manager Ortwin Podlech was with one leg over the armco and the other caught in a mass of dancing sponsoresses and happy Williamsites: ready to kiss the ground, Ortwin was, and so no doubt was Keke. A lap of honour and then came the ordeal of the podium, which at Monaco is something more of a trial by *ennui* than by fire. Prince Rainier and his Princess, done up to the nines and surrounded by poh-faced courtiers are not exactly what a sweaty, hurting driver wants to see when he clambers out of his car!

Keke had enough sweat on his face to slick down his hair, enough time to comb his famous MOO-stache, and then had to wait for Alain Prost and Nelson Piquet to join him. The ceremonial was very ceremonious; for some reason the anthem played was God Save the Queen (maybe the Monegasques didn't believe a non-turbo could win); and Piquet's bow was by far the most reverential — he looked like a headwaiter at the table where the biggest tip is to be expected.

DEREK WARWICK

"It was the best and easiest race I've had for some time. In fact it's the first time that I've had a real race since 1980. But I had two problems, the low first and second gears, and a hard brake pedal which put Patrese at an advantage over me under braking. But around the Swimming-Pool and through the chicane I would say that we were at least 10 kilometres an hour quicker than the Brabhams.

"It wasn't my decision to start on dries, it was Roger Silman's. I wanted to start on wets.

"The accident? Well, both Surer and I were being held up by Sullivan, but then Marc made a mistake out of Rascasse and then going up to Sainte Dévote. I was a third of the way past him, not really trying to overtake, when he began to come over on me. I was braking, but he hit me against the barrier and that was the end of it. And I was only trying to put him under pressure. He hit my right front tyre but I hit the barrier with the rear, which bent a track rod.

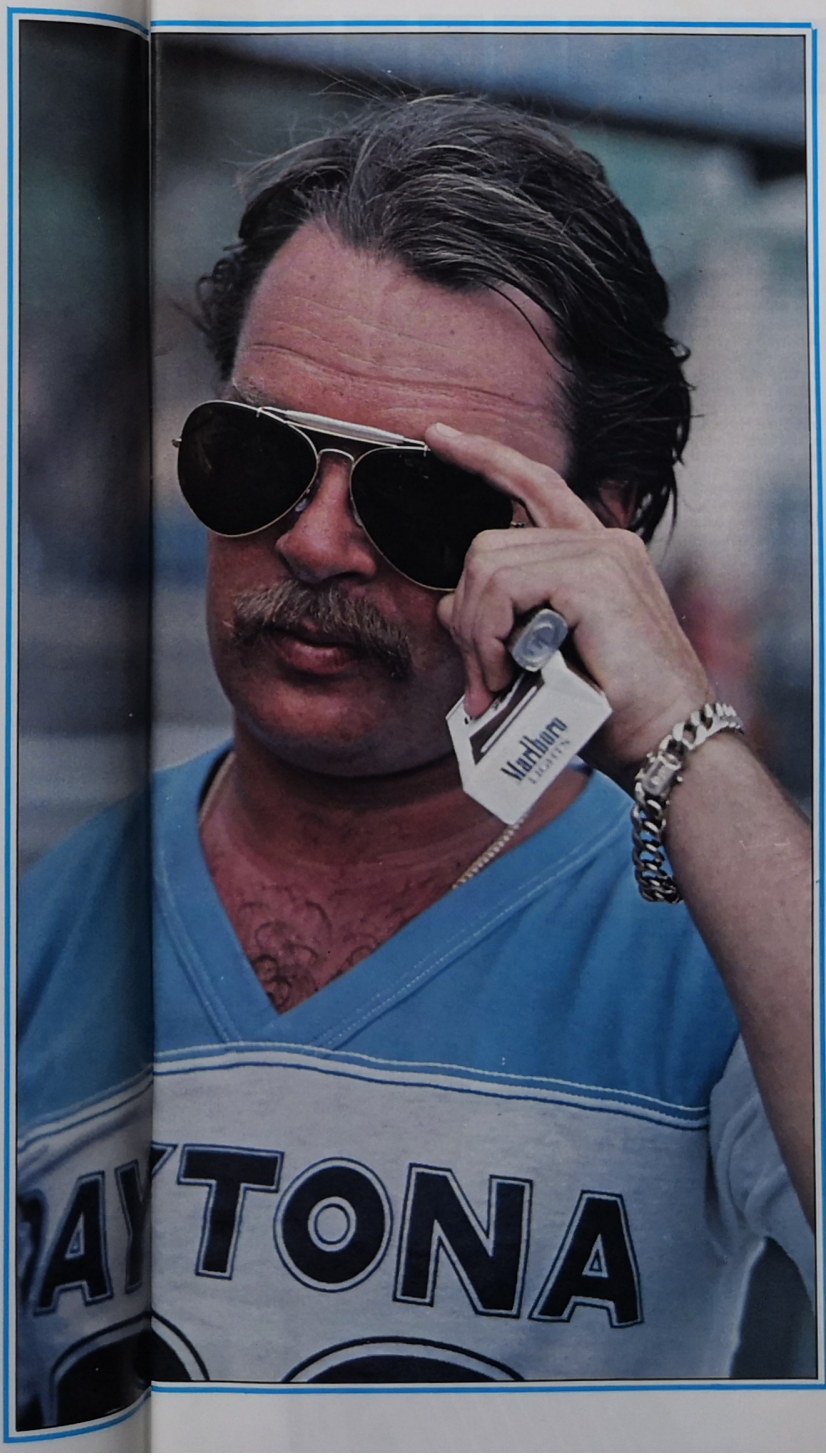
"Maybe it was my fault a little, because maybe I should have waited. It was the first time I had driven against people like Piquet in a grand prix and perhaps I showed my lack of experience."

Then it was down to the Swimming Pool to face renewed rain, the traditional search for a fag (Keke should keep at least one in his nomex, for afters) and the usual lucid statement of the race, spoken with modesty. First the hands: they were clearly a mess, streaked white down the palms, then the tyres: there, clearly, they had made the right choice.

"It was a decision taken by Frank Williams and by Patrick Head," said Keke. *"With a little help from the Goodyear people, who had technical reasons for thinking slicks might work on a track that was drying out fast. I went out for one warm-up lap and I seemed to be getting plenty of grip; but then to make sure, I came back through the pits and put in a second, and then I knew I had made the right choice. I had all the grip I needed. Of course it was a bit slithery out there for the first few laps, but after a while, it was evident that unless it started to rain again, we had made the right choice and the turbos had made the wrong one."*

At this point one goes back to Saturday's practice, when Keke sees he can't improve on the fifth place made on Thursday. Anxious? I ask him. I got back a Keke grin. *"Hell no,"* he says, looking at the rain spotting down as if from a medium-sized California garden sprinkler, *"I just hope it keeps up like this for Sunday, I'll be able to run those turbos off the track!"* Chez Williams, they had one of their hunches. They knew that rain evens things up. It did. So Keke put in one of his best starts ever. Wheels spinning, maximum power down, off like a shot: *"Yeah,"* he said laconically, *"It was a pretty good start, I must say. At Monaco, that's one of the only ways you're ever going to get ahead. I thought it was going to be a lot harder than it was, but in fact, it was like seeing a nice open road in front of me. Everyone went one way and being the sort of man I am, I went the other. No problem."*

In the rain on Saturday, Keke showed his diabolical skill; then, on a damp track on Sunday, Keke showed he could master any conditions. At Monaco, he made not the slightest mistake and from start to finish, he did nothing but attack. (Photos: B. Asset)



MARC SURER

"It was my decision to start on dries, and Chico's to start on wets. It was okay, except that when I came up to overtake Tambay, he was driving as though there was no-one else in the race. So I decided to let him drive over my front wheel, which wasn't very nice of me, but it was the only way to get rid of him, so he spun off.

"Apart from him and Derek, I didn't have any problems. I think Derek was under too much pressure from Piquet and he just tried something silly. There was no way he could overtake where he tried. I checked in my mirrors and he was behind me, and then suddenly there was this bang on my rear tyre. I don't think there would have been enough room even if I'd let him overtake. He just made a silly mistake under pressure. He was clearly behind me on the straight and would not brake. I had him under control anyway, I wasn't worried at all".

No problem? The man had just finished telling me a few days back how his unsleeping sickness had finally been diagnosed as hepatitis. *"We think it's an old attack and I'm getting over it, but the blood count is still making funny little gestures and we're having it checked out again. But at least I know why I've been feeling so drained. Funny, though, I didn't sleep at all last night, or what I call not at all, which means, less than I like; but I feel good. I am full of optimism for this race."*

In anyone else's mouth, that might rate as a cliché; but for someone whose frustrations have mounted all season and who'd just had his appeal turned down in Paris (six points lost in Brazil that would have put him very much in touch with the leaders in the championship), it was nothing less than the straightforword truth: he was on his own kind of determined high; and after the race, no blistered hands or pain or weariness were going to keep him from speaking out against what he considers a rank injustice: *"I didn't expect anything better from FISA,"* he said. *"They have been putting a knife into my back every opportunity they get. that's allright with me. I'll run my own races my own way and if I have to win them and the championship in spite of FISA, well, that's the way it's going to have to be."*

Which he summed up handsomely by saying: *"Look, the only thing wrong with the FISA decision is that I had a nine-point weekend instead of a fifteen-point one!"*

As he was to say after the race, *"It was a hard one. What with the pick-up problem I had, what with just missing a bad shunt, what with having to drive flat out for 72 laps in the hope of putting in some sort of a cushion in case I had to make a pit-stop, I can't call it easy and I can't say I'm not tired. I think my hands show it."*

And so it was: from start to finish, a blistering race, for hands, car and soul. It's like the old days of the Russian Revolution: comrade, let's have a look at your hands. Look at that! Lily-white! Never done a day's honest work in your life, eh? Take him away. Keke fits in their heaven of a man who works flat-out at his job, which is being champion. And in ours for sheer guts. Never a dull moment. Ta.

(Keke's column for this issue is a winner's column). □

PRACTICE

Due to the small dimensions of its circuit, the Monaco Grand Prix limits the number of cars competing to twenty; twenty six drivers are allowed to take part in qualifying practice. Twenty eight were entered, which meant that, as so many times in the past, a pre-qualifying session had to be scheduled. It lasted an hour, and took place on Thrusday, at dawn.

On Wednesday evening the organisers decided, a little late, that those constructors who had not been in the points during the 1982 season, would have to take part in this session. That meant the two Tolemans, the two Theodores and the RAM. A strange decision if ever there was one, allowing the rather weak Osellas to be accepted ex officio. Some saw it as the result of the political battles between FISA and FOCA during the past few seasons. Once these two cars had been eliminated (they were the two Theodores, see "Extra,Extra") the battle could begin in earnest, in the usual fashion, with the first, 90 minute untimed practice. It was a fine day, quite warm. Ghinzani, who was suffering from stomach pains, didn't even take part. The Italian wasn't the only driver who was not feeling up to par. Lauda was still enduring the after-effects of a cold which had gone to his kidneys and Rosberg had not quite got over a bout of hepatitis. But neither of these two thought twice about getting out onto the track.

This setting-up session is particularly important at Monaco; you have to move fast to set up your car before the afternoon qualifying practice, because a good place at the start is so vital on a track where you cannot overtake. What's more, on Saturday, it looked very much like rain. Another thing the drivers had to bear in mind, was that they would have to set up in race configuration, because in Monaco, refuelling is outlawed. Under a regulation dating back to 1955, the teams are only allowed to store a maximum of 50 litres of petrol in the pits. For most of the Imola "refuellers", this did not matter so much. But for Brabham, whose BT52 can only take 200 litres, it posed a serious problem; if Piquet and Patrese stopped, they could not take on board more than fifty extra litres.

The Brabhams, slow in any case, clocked up the 10th and 23rd fastest times. The fact that their BMW engines had something to do with this was borne out by the fact that the ATS could manage only 21st. At the other end of the scale, Prost made the fastest time, but it was surprising to see the Renault followed by two atmospherics, Rosberg's Williams and Alboreto's Tyrrell. These two got the better of the second French car, driven by Cheever. The Ferraris could do no better than 6th and 9th, but that was nothing compared to Alboreto's troubles. He broke a turbo at the start of the session and another towards the end. He was forced to change cars and remarked that the Lotus 93T was not up to the power of its Renault engine. This lack of grip meant the young Italian was constantly facing sideways, even in front of the pits, on an almost straight stretch of the circuit. At one o'clock, the moment for the first sixty-minute timed practice, it was overcast and it seemed almost certain to rain. But luckily a breath of wind blew away the rain clouds, leaving feeble sunshine in their wake.

The Ferraris, on better form than in the morning, looked like serious contenders for pole position, as did the Renaults. For about twenty minutes, Arnoux clocked up the best time of 1'25"808. Then Prost beat him to it, first with 1'25"259 then 1'25"223.

As usual the limit of two sets of qualifying tyres brought its own problems. Those drivers who had even one or two unobstructed laps were lucky. Prost and Arnoux again proved themselves using their second sets of tyres. Rene clocked a time of 1'25"182, but a few minutes before the end, Prost brought his time down to 1'24"840. He had driven at an average of 140.537 km/h. Last year's pole position time, set in the wing-car era, was almost within reach. Behind Prost and Arnoux, their respective teammates, Cheever and Tambay achieved the 3rd and 4th fastest times ahead of Rosberg, who was once again the uncontensted king of the atmospherics; behind the Williams, Piquet scored the 6th fastest time, ahead of de Cesaris, and Laffite, who had had a slight accident in the chicane with his first set of tyres, breaking two wheel rims and slightly damaging his suspension. Jarier was next and then Warwick, happy to pull himself up to 10th, despite a loss of turbo pressure, followed by Alboreto, Surer and Baldi.

Those with BMW engines were among the unlucky ones. Patrese, brought to a halt by a burst air intake had to continue in the spare after a long walk back from the Portier. Winkelhock, meanwhile, also had to resort to the spare after an injection failure.

Manfred had the 16th fastest time, Riccardo the 17th; Winkelhock had the added excuse that he had been held up by Prost at Massenet, during his fastest lap. The six provisional non-qualifiers at the end of the day were Giacomelli, Lauda, Watson, Fabi, Salazar and Ghinzani, whose Osella- Alfa Romeo made a brief appearance on the circuit without making much of an impression. The McLarens' weak performance was no great surprise to them. At Ron Dennis, they had already established that the temperature of their tyres was too low. They were designed to function at 80 degrees centigrade, but were only reaching 40.

If it rained on Saturday afternoon, there would be no McLarens at the start.

After the traditional Friday break, the second day began under menacing skies. During the first 90 minutes of untimed practice, the skies clouded over increasingly. An east wind began to blow and the temperature dropped. The track stayed dry, and several drivers managed to better their times of the first session. Fastest was Patrese followed by Winkelhock; they cut 3"2 and 3" off their times, respectively. Had it been official practice, the West German driver's time would have given him second place on the starting grid.

Those behind Patrese and Winkelhock also improved their times but in less spectacular fashion: Lauda bettered his time by 2"3, Watson by 2", de Angelis by 1"9 Mansell by 1"4 and Warwick by 1"3. The McLarens were using new tyres specially brought down from Clermont-Ferrand by Michelin, so as to correct an imbalance and place more weight at the back. Sullivan's transmission got blocked, Warwick broke a turbo, Arnoux's engine blew up, Piquet had to stop in both his cars because of broken half drive shafts, de Cesaris had a slight accident and Salazar drove his RAM into the barrier in the chicane.

During the lunch break, just as everyone had feared, the skies opened and the rain came down in buckets. Half an hour before the final 60 minutes of timed practice, it was already clear that it would be Thursday's times that counted. Lauda, Watson, Fabi, Salazar and Ghinzani would not be able to qualify. 19 cars would race, with rain tyres, in what was to be a race peppered with incidents— none of them serious. Rosberg, with a time of 1'52"030, 28"190 slower than the pole, had the best time ahead of Arnoux, Cheever and Lauda.

For honour's sake and also to set up his car in rain configuration in case the weather proved inclement the next day.

Didier Braillon

THE RACE

1. First lap: the track's slippery, and there's an incident involving Alboreto's Tyrrell and Mansell's Lotus between Tabac and the Swimming Pool, though the Italian is on slicks. Baldi, in tenth place, has just come by and the two Arrows, driven by Serra and Surer, are not far behind.
(photo: DPPI)

2. The drivers of the turbos — Cheever in the Renault, Arnoux and Tambay in the Ferraris, de Cesaris in the Alfa Romeo — have to start on wets because of the power of their engines. During the second lap they battle it out at The Casino for third place behind Rosberg and Prost.
(photo: DPPI)

3. On lap six, Arnoux gets the better of Cheever, who has been holding up the field, and goes into third place. But he punctures a tyre after a brush with the barrier in the Portier. After the Chicane, a piece of his broken wheel rim flies off, as Cheever, Surer, Tambay, de Cesaris and Warwick overtake; the Ferrari limps back to the pits and retires soon after with a broken suspension.
(photo: First Line)

4. Warwick, Prost, Piquet, going into the Mirabeau. The Toleman, which had started the race on slicks quickly got up with the leaders, because the Renault and the Brabham had both stopped to change tyres They continued to fight it out from the 12th until the 21st lap. But then the Brazilian moved up a place after the Frenchman began having trouble with fourth gear.
(photo: DPPI)

The teams were faced with a difficult choice. It had been raining on and off all morning, and it was still spitting with rain as start time approached. The track was still damp. Would it dry out, or would those leaden clouds drop more rain?

As the cars formed up on the grid, it was a game of "well, what are they doing?" Some drivers made their own choice, others had it made for them. And all the front runners in the World Championship copied one another and opted for wets. Rosberg, Laffite, Warwick, Alboreto, Surer, de Angelis and Sullivan all went for dries.

It wasn't long before they were proved wrong. The first two laps were pretty wild, with Mansell and Alboreto taking one another out on the first lap, and Boesel and Winkehock doing the same a couple of laps later.

But by then Rosberg had already played his cards. He'd made a blistering start to take Sainte Dévote in second place behind Prost, and by the end of the second lap, he was in the lead. The turbo men — Prost, Tambay, Cheever and Arnoux were providing an excellent buffer between his flying Williams and the other dry-tyred runners. The only man to make inroads into the turbos during those opening laps was teammate Laffite. By lap 10, Keke was an enormous 23 seconds in the lead, and that was over Laffite.

The turbo challenge was in disarray behind. They had all stopped for dry tyres, the Brabhams being called in first after a couple of laps, followed by Renault and Ferrari. Their stops elevated Surer and Warwick to third and fourth behind the two Williams.

But while Surer soon pulled away, a solid brake pedal prevented Warwick from doing the same thing. First Prost tried to overtake the Toleman, but when his Renault began to lose fourth gear, he dropped back to let Piquet take up the challenge on the 22nd lap. Meanwhile, Cheever was catching the three of them, making it a foursome by one third distance. Cheever overtook his troubled teammate and attacked Piquet, only for his engine to break. So it was Piquet who was left to challenge Warwick's Toleman for fourth place. Rosberg and Laffite were running as reliably as could be. But the turbo pair fighting for fourth were gaining on Surer's third placed Arrows. By the 40th lap, the normally aspirated car led the turbos by just a few feet. For the next ten laps, the three battled to keep their places in the face of a strong challenge from behind. On lap 49, two thirds distance, Surer missed a gear. Warwick drew alongside, but going into Sainte Dévote, the two cars tangled and the battle of the young lions was over: Surer spun out; Warwick continued to his pit with a bent suspension.

That promoted Piquet to third, which became second four laps later when Laffite's third gear broke.

Behind the first three, Patrese and Tambay were now to be found battling for fourth place. The Frenchman's Ferrari teammate Arnoux hadn't even completed ten laps. On the sixth, he had thumped the barrier, suffered a puncture and then limped back to the pits. Once there, he had the tyres changed; to no effect, for when he took to the track again, all was clearly not well and he pulled off.

On Tambay now fell the responsibility of satisfying the thousands of Ferrari fans who had swarmed across the border at Ventimiglia. After his stop, he had caught Jarier and Patrese, but while the Ligier driver was easily overtaken, the Brabham was not so easily passed. The two cars formed their own little procession from lap 17 to lap 54, Patrese moving up from 14th (after his stop) to fourth. But with just 16 laps to go, his engine began to misfire badly.

Tambay overtook him on lap 61, but on lap 62, the Italian driver headed for the pits. His fuel pump wasn't picking up its fuel. Was the car out of petrol? Piquet's wasn't, so there was no reason why Riccardo's should be. Patrese called for fuel, but the Brabham mechanics sent him straight back out again. Later that lap, the engine died altogether, and so it was Danny Sullivan who picked up his first ever World Championship points with fifth place. He had held up Rosberg for a few laps, but otherwise had driven a sensible race. Mauro Baldi picked up the final point, while the only other finisher was Chico Serra, the only man not to score. So the Cosworth engine had scored its 150th victory at Monaco as many teams had hoped it might. But it had been no walkover. The turbo teams had made their error of judgement, but had still scooped points at the end, only the gritty Finn depriving them of the ultimate prize.

6. With Prost weakened, the Warwick/Piquet duo started gaining on Surer, whose choice of slicks at the outset had enabled him to move into third place during the 10th lap. The Arrows still looked as though it could hold off the challenge. But then, in the 49th lap, it tangled with the Toleman at Sainte Dévote.
(photo: DPPI)

7. Laffite, who had also started on slicks, was up behind Rosberg from the 8th lap on. He managed to close the gap a little because of Rosberg's minor problems, but on lap 53, he pulled off, after his gearbox locked in third. Here he is lapping Sullivan, who went on to finish fifth.
(photo : B. Asset).

8. Rosberg first, Piquet second, Prost third, standing proudly on the podium at Monaco. The Brazilian driver now leads the championship, two points ahead of the Frenchman. As for Keke, he's up to fourth, behind Tambay.
(photo: DPPI)

Monaco statistics

MONACO GRAND PRIX

Date: May 15, 1983.
Circuit: Monaco.
Circuit length: 3,312 kms.
Race distance: 76 laps, 251,712 km.
Weather: overcast, track wet at the start of the race.
Attendance: 70,000 spectators.

PREVIOUS WINNERS
(Last five races)

1978 : Depailler (Tyrrell Ford)
1979 : Scheckter (Ferrari)
1980 : Reutemann (Williams Ford)
1981 : Villeneuve (Ferrari)
1982 : Patrese (Brabham Ford)

STARTING GRID

Arnoux Ferrari 126C2 1'25"182 (1)	Prost Renault RE40 1'24"840 (1)
Tambay Ferrari 126C2 1'26"298 (1)	Cheever Renault RE40 1'26"279 (1)
Piquet Brabham BT52-BMW 1'27"273 (1)	Rosberg Williams FW08C-Cosworth 1'26"307 (1)
Laffite Williams FW08C-Cosworth 1'27"726 (1)	De Cesaris Alfa Romeo 183T 1'27"680 (1)
Warwick Toleman TG183B-Hart 1'28"017 (1)	Janer Ligier JS21-Cosworth 1'27"906 (1)
Surer Arrows A6-Cosworth 1'28"346	Alboreto Tyrrell 011-Cosworth 1'28"256 (1)
Mansell Lotus 92-Cosworth 1'28"721 (1)	Baldi Alfa Romeo 183T 1'28"639 (1)
Winkelhock ATS D6-BMW 1'28"975 (1)	Serra Arrows A6-Cosworth 1'28"784 (1)
Boesel Ligier JS21-Cosworth 1'29"222 (1)	Patrese Brabham BT52-BMW 1'29"200 (1)
Sullivan Tyrrell 011-Cosworth 1'29"530 (1)	De Angelis Lotus 93T-Renault 1'29"518 (1)

Did not qualify:
Giacomelli/Toleman TG183B-Hart, 1'29"552 (1)
Lauda/McLaren MP4-1C-Cosworth, 1'29"898 (1)
Watson/McLaren MP4-1C-Cosworth, 1'30"283 (1)
Fabi/Osella FA1D-Cosworth, 1'30"495 (1)
Salazar/RAM 01-Cosworth, 1'31"229 (1)
Ghinzani/Osella FA1E-Alfa Romeo, 1'35"572 (1)

Did not prequalify:
Cecotto/Theodore 183-Cosworth, 1'33"817
Guerrero/Theodore 183-Cosworth, 1'38"389

PROVISIONAL WORLD CHAMPIONSHIP POSITIONS

(After the Brazilian, Long Beach, French, San Marino and Monaco grands prix.)

							Total
1. Piquet	9	—	6	—	6		21
2. Prost	—	—	9	6	4		19
3. Tambay	2	—	3	9	3		17
4. Rosberg	—	—	2	3	9		14
5. Watson	—	9	—	2	—		11
6. Lauda	4	6	—	—	—		10
7. Arnoux	—	4	—	4	—		8
8. Laffite	3	3	1	—	—		7
9. Cheever	—	—	4	—	—		4
10. Surer	1	2	—	1	—		4
11. Sullivan	—	—	—	—	2		2
12. Cecotto	—	1	—	—	—		1

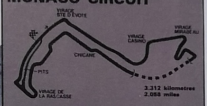
RESULTS

1. Rosberg/Williams FW08C-Cosworth, 76 laps, 251.712 kms in 1hr56'38"121, an average speed of 129,586 km/h.

2. Piquet	Brabham BT52-BMW	18"475 behind
3. Prost	Renault RE40	31"366 behind
4. Tambay	Ferrari 126C2	64"297 behind
5. Sullivan	Tyrrell 011-Cosworth	2 laps behind
6. Baldi	Alfa Romeo 183T	2 laps behind
7. Serra	Arrows A6-Cosworth	2 laps behind

Fastest lap: Piquet/Brabham BT52-BMW, 1'27"283 on lap 69, an average speed of 136,603 km/h.

MONACO CIRCUIT



CONSTRUCTORS' WORLD CHAMPIONSHIP

1. Ferrari 25 pts ; 2. Renault 23 pts ; 3. McLaren 21 pts ; Williams 21 pts ; Brabham 21 pts ; 6. Arrows 4 pts ; 7. Tyrrell 2 pts ; 8. Alfa Romeo 1 pt ; Theodore 1 pt.

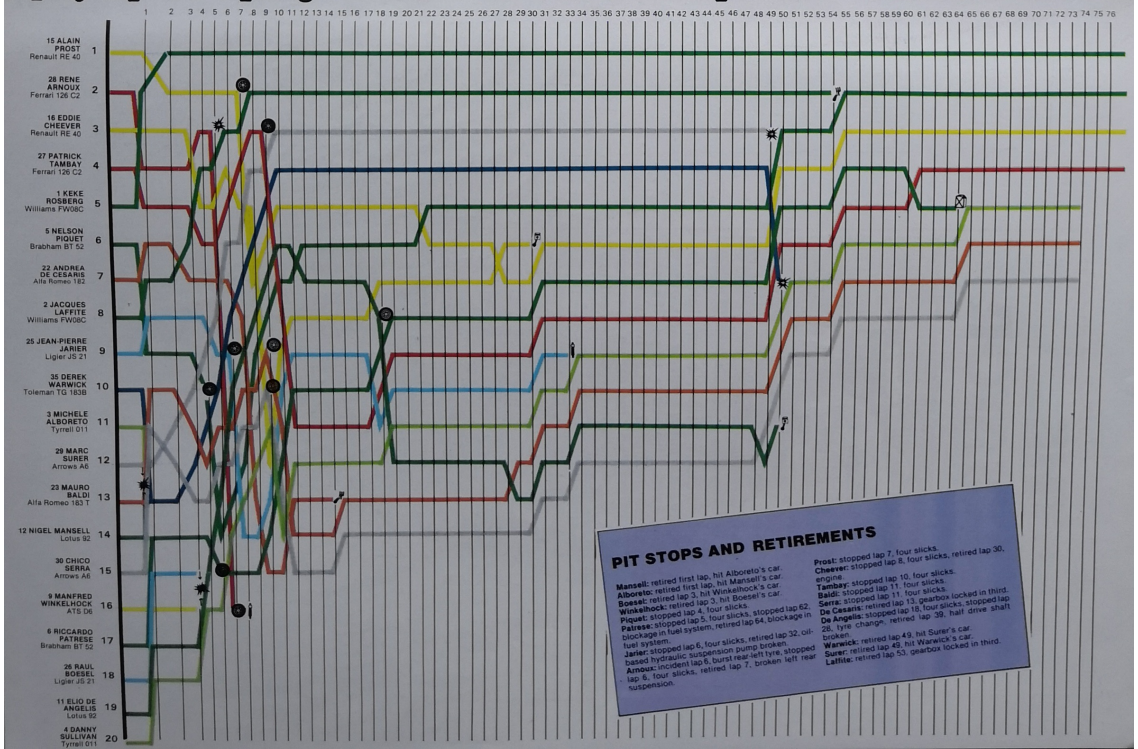
OFFICIAL QUALIFYING TIMES

	Pre-qualifying	Unoff. practice 1	Timed practice 1	Unoff. practice 2	Timed practice 2	Warm-up Sunday
1. Rosberg	———	1'26"879	**1'26"307**	1'28"516	1'52"030	1'29"548
2. Laffite	———	1'27"802	1'27"726	1'28"290	1'53"580	1'31"045
3. Alboreto	———	1'27"685	1'28"256	1'27"567	2'00"969	1'30"032
4. Sullivan	———	1'29"745	1'29"530	1'29"872	2'09"076	1'32"067
5. Piquet	———	1'29"084	1'27"273	1'27"225	1'56"736	1'29"635
6. Patrese	———	1'31"287	1'29"200	———	———	1'28"558
7. Watson	———	1'30"025	1'30"283	1'28"207	1'53"772	———
8. Lauda	———	1'29"148	1'29"898	1'27"591	1'52"448	———
9. Winkelhock	———	1'31"036	1'28"975	1'25"945	2'01"178	1'33"069
11. De Angelis	———	1'30"090	1'29"518	1'27"569	1'56"762	1'30"467
12. Mansell	———	1'28"321	1'28"721	1'26"289	1'56"560	1'32"356
15. Prost	———	1'26"539	1'24"840	1'26"890	1'52"845	1'28"922
16. Cheever	———	1'27"771	1'26"279	1'27"497	1'52"434	1'28"975
17. Salazar	1'32"502	1'30"334	1'31"229	1'32"229	———	———
22. De Cesaris	———	1'29"752	1'27"680	1'28"007	1'54"335	1'32"796
23. Baldi	———	1'31"126	1'28"639	1'28"399	1'56"398	1'32"401
25. Jarier	———	1'28"170	1'27"906	1'27"279	1'55"986	1'30"124
26. Boesel	———	1'30"124	1'29"222	1'32"484	1'59"110	1'33"313
27. Tambay	———	1'28"395	1'26"298	1'27"385	1'53"987	1'28"090
28. Arnoux	———	1'27"810	1'25"182	1'26"693	1'52"183	1'28"692
29. Surer	———	1'30"567	1'28"346	1'29"113	1'56"836	1'30"272
30. Serra	———	1'32"132	1'28"784	1'27"844	———	1'31"693
31. Fabi	———	1'32"027	1'30"495	1'29"397	———	———
32. Ghinzani	———	———	1'35"572	1'29"519	———	———
33. Guerrero	1'38"389	———	———	———	———	———
34. Cecotto	1'33"817	———	———	———	———	———
35. Warwick	1'35"453	1'29"820	1'28"017	1'26"698	———	1'36"825
36. Giacomelli	1'32"190	1'30"093	1'29"552	1'30"329	———	———

THEIR FASTEST RACE LAPS

Piquet	1'27"283 (69)
Prost	1'27"645 (60)
Tambay	1'27"911 (55)
Patrese	1'27"922 (48)
Warwick	1'28"655 (39)
Laffite	1'28"705 (49)
Cheever	1'28"719 (21)
Rosberg	1'29"124 (49)
Surer	1'29"149 (41)
Baldi	1'29"757 (43)
De Angelis	1'30"159 (39)
Serra	1'30"160 (46)
Jarier	1'30"635 (17)
Sullivan	1'30"772 (46)
De Cesaris	1'32"633 (13)
Arnoux	1'44"184 (04)
Winkelhock	1'51"607 (03)
Boesel	1'52"126 (03)
Alboreto	———
Mansell	———

Lap by lap - Giro per giro - Runde um runde - Tour par tour - Vuelta a vuelta - Ro


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76
15 ALAIN PROST Renault RE 40 1
28 RENE ARNOUX Ferrari 126 C2 2
16 EDDIE CHEEVER Renault RE 40 3
27 PATRICK TAMBAY Ferrari 126 C2 4
1 KEKE ROSBERG Williams FW08C 5
5 NELSON PIQUET Brabham BT 52 6
22 ANDREA DE CESARIS Alfa Romeo 182 7
2 JACQUES LAFFITE Williams FW08C 8
25 JEAN-PIERRE JARIER Ligier JS 21 9
35 DEREK WARWICK Toleman TG 183B 10
3 MICHELE ALBORETO Tyrrell 011 11
29 MARC SURER Arrows A6 12
23 MAURO BALDI Alfa Romeo 183 T 13
12 NIGEL MANSELL Lotus 92 14
30 CHICO SERRA Arrows A6 15
9 MANFRED WINKELHOCK ATS D6 16
6 RICCARDO PATRESE Brabham BT 52 17
26 RAUL BOESEL Ligier JS 21 18
11 ELIO DE ANGELIS Lotus 92 19
4 DANNY SULLIVAN Tyrrell 011 20

PIT STOPS AND RETIREMENTS

Mansell: retired first lap, hit Alboreto's car.
Alboreto: retired first lap, hit Mansell's car.
Boesel: retired lap 3, hit Winkelhock's car.
Winkelhock: retired lap 3, hit Boesel's car.
Piquet: stopped lap 4, four slicks.
Patrese: stopped lap 5, four slicks, stopped lap 62.
Serra: stopped lap 6, four slicks, retired lap 64, blockage in fuel system.
Jarier: stopped lap 6, four slicks, retired lap 32, oil-based hydraulic suspension pump broken.
Arnoux: incident lap 6, burst rear left tyre, stopped lap 6, four slicks, retired lap 7, broken left rear suspension.
Prost: stopped lap 7, four slicks.
Cheever: stopped lap 8, four slicks, retired lap 30, engine.
Tambay: stopped lap 10, four slicks.
Baldi: stopped lap 11, four slicks.
Serra: stopped lap 12, gearbox locked in third.
De Cesaris: retired lap 18, four slicks, stopped lap.
De Angelis: stopped lap 39, half drive shaft 28, tyre change, retired lap 39.
Warwick: retired lap 49, hit Surer's car.
Surer: retired lap 49, hit Warwick's car.
Laffite: retired lap 53, gearbox locked in third.

THE GLADIATOR

They had them in ancient Rome: born fighters, always struggling against fate. Andrea de Cesaris started out fighting karts, then cars, then - it sometimes seemed - the whole world. McLaren gave him a hard year in 1981; he gave himself an even harder one. At Alfa Romeo, he is a surer, more resilient driver, but still a gladiator.

by Keith Botsford

There is a notorious picture of Andrea, all eyeballs, pure white, and the tics are the first thing you see: they start in the neck and rise to the eyes or start in the eyebrows and spread downwards so that the eyes never quite meet your own, and perhaps there is not enough calm in the young man for the face to compose itself into that sort of polite, eager mask which most drivers his age show to the world. But, at a mere twenty-three (he will have his twenty-fourth birthday after Spa) Andrea is one of the world's young-old: ten years of driving, starting with karts, ten years of intense and not often-rewarded effort.

It has taken its toll. *"I was just very young, all of twenty-one, when I came into Formula One, I had no experience at all. I've grown up since then, and I think I'm a different man."* The difference is our subject as we sit at Imola in the Alfa Romeo motor home and the over-amplified girl blares her telephone messages into the PA system: what Andrea was like then and what he is like now, and what the sport does to men who have to grow up fast and don't find it easy, who perhaps cannot change their natures.

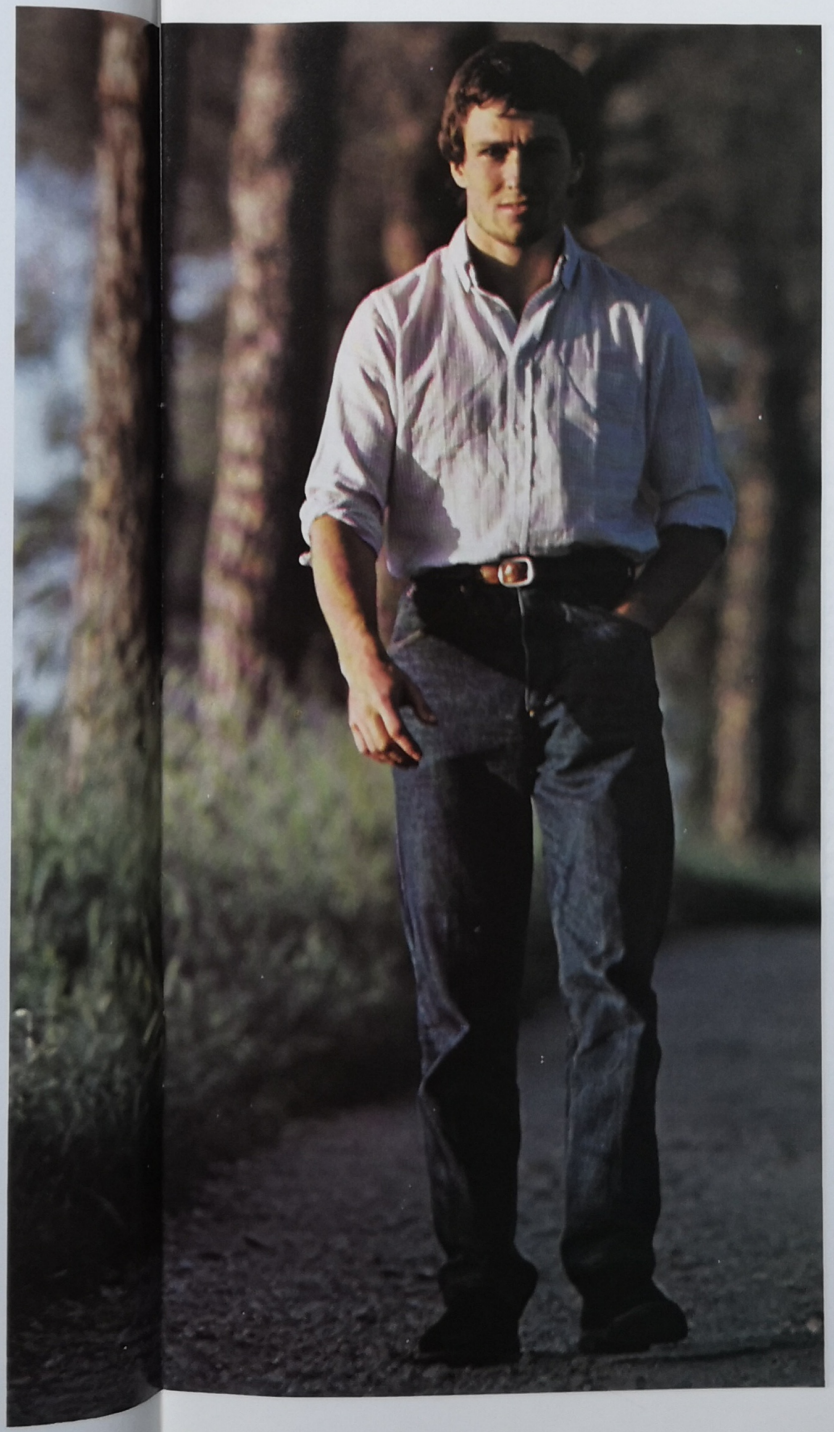
"The growing-up process," he says, "has not been an easy business, it certainly has been lonely. I did it by myself and I think I grew up partly as a result of all those defeats in my first year". Defeats? Let's be honest. The soubriquet "Andrea de Crasheris" was put on him and stuck: as it did at first with "Hunt the Shunt". It's all part of the passion some apply to the sport: the attempt to do too much too soon and too fast. That year at McLaren was an unhappy one. He didn't get on with the team's management: neither with Teddy Mayer, who didn't like seeing his cars being written off, nor with Tyler Alexander, who was supposed to be his custodian and mentor. In fact, his only friend within the team seems to have been John Watson, who tried to smooth the waters Andrea ruffled and who once said to me he thought de Cesaris *"in talent a much better driver than he is given credit for. His problem is one of temperament".* *"The team was on my back," says Andrea. "They weren't easy on me and I wasn't easy on their cars. Tyler wanted one thing, I wanted another. The result was that we didn't get either thing done".* Was he really as isolated as it sounds? Occasionally, there is a bitter downturn to Andrea's mouth as he describes that year. *"Only one person really helped me in those early days, and that was Aleardo Buzzi of Marlboro. He knew me, he respected me and he supported me even when things went wrong".* (The connexion is a family one: Andrea's father distributes tobacco products in Italy). I asked Andrea whether he would then think of himself as a self-made man in the sport: *"Certainly not"*, he answered. *"I had help: from Buzzi, from my father. My father supported me from the beginnings of my career and always helped me; he would come to races, he would encourage me. But in Formula One, he no longer could spare the time. But the fact is that though I made mistakes that first year, I also had a number of accidents that were no fault of my own; I was still blamed for them".*

It is a truism that out on the track the driver is entirely alone. It is off the track that the psyche needs propping up; on it, the driver must produce his own adrenalin, his own self-confidence. *"If you go fast, you're fast; if you're slow, you're slow. All the help you have turns out to be no help at all in the end. That is one of the frustrations of the profession; it is measured in facts, in achievements, not in what-might-have-been. There is the man who wins the race, and behind him there are a lot of others who don't. Explanations don't matter; the facts talk. You may have done your job extremely well in testing, then you come to the track and nothing goes right; you want to go quicker, but you can't".*

The contrast between then and now is obvious. The young man has matured; he is more serious; he is more determined; he is more conscious of himself. *"Of course I am. If I hadn't improved, I don't suppose I'd be sitting where I am. If things had gone on as they did that first year, I think I would have quit. I'm quieter".* Certainly, back then, the Andrea one knew was stubborn, refractory, uneasy, twitchy, undiplomatic; he suffered from an excess of desire, from too great an intensity. The intensity deprived him of logic, of an understanding of his inner self. *"Experience counts for a lot"*, explains Andrea, *"and all my experiences, the good ones and the bad ones, have ultimately helped me to improve in one way or another. But my inner character was probably better in those earlier days. I was younger, purer, without afterthoughts; there were fewer problems that affected me deeply".*

There is, of course, something like knowing too much, becoming wise before one's time; it can be a souring experience. *"In the world of racing, you simply have to use your experience. Outside racing, that is another matter. I think I was perhaps a better man back then. I sometimes wonder how long a Formula One driver can last: once he's put in his seven or eight years in the sport, I'm not sure he can stand the pressure much longer. The problem is that for all the years you've been racing, you think of nothing else. Before you get into Formula One, there are probably another seven years in which you've been building your career: so, fourteen years in which you don't do or think of anything else. I've been at it ten years now: when you quit, it's hard to think you'll have enough energy left to start something else. On the other hand, you can't just do nothing".*

I made the comparison to boxers, who also have to live and operate for brief periods under great physical and emotional stress. *"Boxers think physically"*, replied Andrea, *"they have more time between fights. With us, it's unremitting, constant. When we finish a weekend, it's not as though the fight were over. We go on thinking: this went right, that went wrong: why? I know it sounds strange. People who don't understand the sport think of drivers as putting in a few hours every other week. But it's not like that. The stress is on the brain. Your brain continues working; it never stops. Sometimes I look with envy on the man who works his eight-hour day and then goes home and forgets all about his job. We never get our job off our backs. Even off the track, no one allows you not to think about driving. That's the world you live in. It absorbs you, it sucks you dry, you live, breathe and eat it. From the day you start until the day you quit, you have nothing but that".*



"You never stop thinking, worrying about the race. Sometimes I really envy people with 9 to 5 jobs, who can just switch off and forget everything at the end of the day..."
Andrea de Cesaris seems to be more vulnerable to pressure than his fellow drivers; he's endlessly searching for ways to relax.

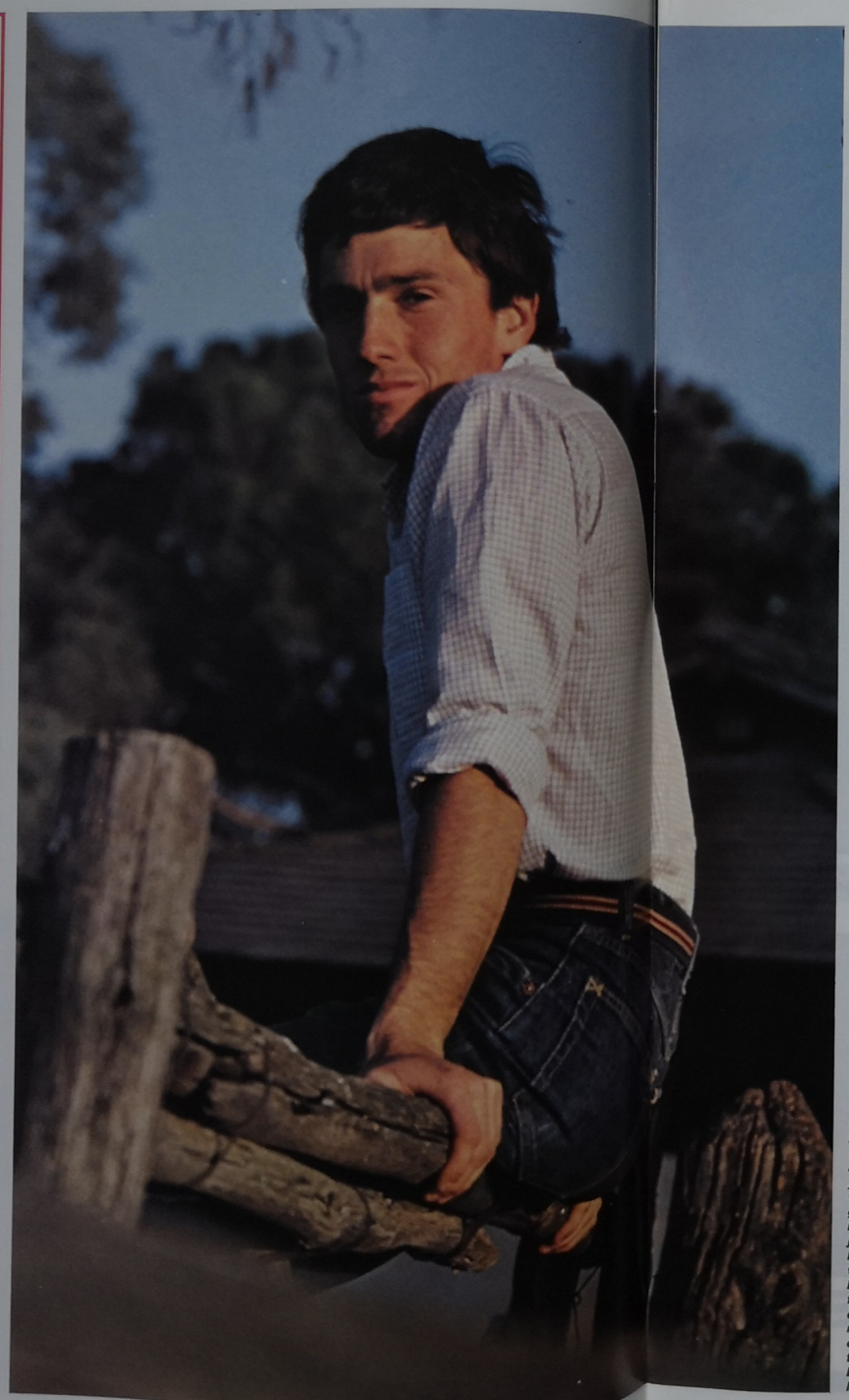
The fault's not in us but in our stars, said Shakespeare: man is destined to a life of a certain kind, he is a hostage to fortune. Did Andrea account for his relative lack of success (one pole position, one third place and two sixth places) by considerations of ill fortune? Fate is easy to blame. It looms larger and larger as ill-success follows ill-success. *"You can't make it without luck, alright. But fate and fortune are not abstractions"*, argues Andrea. *"Over fifteen races, there should be at least ten in which you're really quick. With luck, you're going to win one of those ten. Look at Elio de Angelis last year; his car*

wasn't really competitive, but he managed to win in Austria. Luck can come to you, as it can refuse to come. But if you sit back and wait for the luck, it will never come. You have to make your own luck. If you have a competitive car, luck will come your way one day; if you don't have one, and you give up and stop working on your car, then you can be sure the luck's not going to come your way. Cars that never go wrong are lucky cars. Once you can be confident that your car's going to finish a race, then you can be sure one day fortune will smile on you".

But then, one argues, drivers also make their luck in other ways; they make sure they have the opportunities. There are drivers for whom a sixth place is nothing ignoble. It may not be the summit of their ambitions; it is a stepping stone to better things. The good ones have all gone through trying periods in which finishing in the points was satisfaction enough. Even later in their careers, there are the cautious ones: they place because the points are valuable to them and to their teams; they do not go looking for dogfights; they drive with circumspection. It is something that Andrea seems to be without.

"All right, there is some truth in that", says Andrea. *"I think I know when a car can do better and when it can't, but I'm human; it is frustrating just sitting in the car and not being able to move it along. Formula One is my profession: if I'm in a car that isn't going anywhere, I think to myself that I ought to be in one that is going to go somewhere. If I don't win, I'm simply unhappy. So I push the car, and if it won't be pushed, then I must get one that can be pushed. Scoring points is a form of victory, I agree, but that's when you're after the championship, which is a different sort of game. I've scored points in my day, but it's not the same as winning. It's not that I feel I have to win, it's that I want to very badly. I've never won a race: sometimes because of my mistakes. The fact is, I haven't made it yet, and that weighs on me. So the car goes wrong. Up to a point, any driver can live with that; but when it happens too often, you can't bear with it any longer. It's like knowing you've written a brilliant book and everyone refuses to publish it".*

So, was that long-awaited victory on its way? *It's about time"*, answered Andrea firmly. *"I've had problems and I've had ill-fortune. But in my career there have been two or three races I really thought I could win. This year, I'm not sure I can win a race, that's hard with a brand-new car and all the turbo teams have been through the same waste-land. I think I have the patience, but*



"Sometimes you can kid yourself that winning isn't everything. But once you feel that victory's within your grasp, you can't bear not to win. It's just like writing a book than no-one wants to publish." ***Despite his frustrations, Andrea de Cesaris still manages to relax occasionally, thanks to his girlfriend Laura and a healthy lifestyle.***

I don't deny I'm frustrated. If I could win a race, it would all change. I'd feel so much better".

Change there has been in Andrea's young life. After his first year at McLaren (discounting two races at the tail-end of the 1980 season for Alfa), he moved to Alfa Romeo. There he found the friend and mentor he had been looking for, in the person of Gérard Ducarouge. *"Yes, I was very happy with Gérard. Not only were we professional colleagues who esteemed each other, we were good friends"*. Considering how close the relationship between drivers and their engineers is, the sacking of Ducarouge from Alfa must have been a serious blow: a new language to learn, new shorthands, new intimacies: such things are not put together in a day, it takes years for two men to be able to read between each others' lines.

"Certainly, there's something very important gone out of my life". Was it true that when Pavanello broke the news to him, Andrea caused some commotion and rather moved the furniture about in Pavanello's office? *"Let's just say I wasn't exactly happy"*, answered Andrea, scowling. *"But I understand the situation. At Euroracing, they just couldn't work together any more. There was nothing either side could do about that and engineers and designers are the team's business, not mine. I have to work with who there is; I can't impose anyone on the team, and it's early days yet to say what form of relationship will grow up between myself and the new team of engineers. But I don't have any complaints with Alfa Romeo. They treat me well and I think they respect me; my relations with Pavanello, with Chiti, are excellent. They want me to go well. Let's put it this way, I'd like to lead Alfa Romeo to victory and I have a contract for this year. I recognize the efforts they are making. It's a well-disciplined and very hard-working team.*

"It is true that sometimes Italian teams are excessive, flamboyant. I am Italian myself, but I don't think Alfa Romeo is. We are all human, but at Alfa I don't think that humanity is pushed too far at the expense of the rest, the professional, working side of the sport. If something goes wrong, there is a way to correct it. Pavanello is the sort of man who knows how to strike the balance between the human and the non-human. He himself came up from nowhere to success. He's not had any easy life, he has experience behind him".

Would Andrea think of his as an easy life? *"Non certo molto facile"*, he says. Certainly not easy. *"At eighteen I had to leave everything behind me and go to England. I knew nothing, not a word of the language. No, I wouldn't say it was easy. Let's say, a difficult life, but acceptable"*.

And yet he seems reasonably satisfied this year, despite all the difficulties the Alfa Romeo has had. *"We have a very competitive chassis"*, he explains, *"and the engine too is very good. It just isn't yet at its best, it's at about sixty percent of what it will one day produce. It lacks all those sophisticated tweaks that Renault and the rest have built in over the years. At the moment, it's the sort of car that can perform extraordinary exploits and also fall flat on its face. But our time will come. The Michelins are very good and getting better with every race"*.

And yet, when you look at it, it's hard to think the world's his oyster. *"I think Formula One changes a man"*, said Andrea quietly (a chill and symbolic wind was blowing through the paddock at the end of yet another day of hope and dashed expectation). *"You just can't be the same man afterwards. There is too much stress on you. You are on trial every fifteen days. Already, I note the changes in myself. There are obviously changes for the good and changes for the bad, and sometimes I wish I could just go home and lie in the sun and not think of a car or of the sport for long enough to put all the pieces together. If I can win, just once, I'll be more relaxed and more sure of myself, but I note how much I've altered. I was once a very optimistic young man who thought he'd go out and conquer the world. Now I'm much more of a pessimist. I don't think that's a change for the good, but perhaps I'm more realistic"*.

He doesn't like the change in him? *"Maybe I just know more"*, he answers. Which is called growing up. One doesn't stay fourteen for more than a year. *"The waiting race is not my race, waiting is not my game"*, he concludes. And is that why he struggles so hard and so constantly, so relentlessly? *"I am a born fighter. I was born fighting"*.

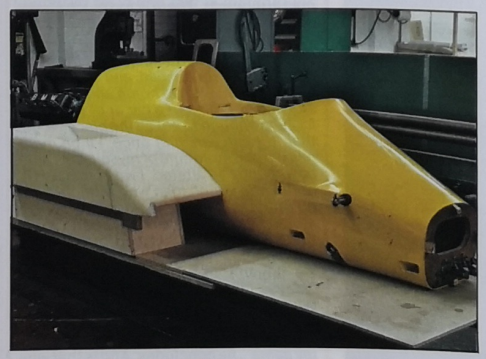
As Caesar was born: see Shakespeare. A gladiator in a world without ease. □

IN AT THE BIRTH

Getting an F1 car onto the starting grid and cheering it on to victory—that's only part of the story, just the tip of the iceberg. The real battle takes place behind the scenes, far from the eyes of the Grand Prix crowds. It's a battle of men and of techniques. The road from the drawing-board to the first turn of the wheel is a long and arduous one, with plenty of sleepless nights and abandoned hopes along the way. Here, with the help of John Townsend's photographs, we trace the birth of the ATS D6-BMW, created by Gustav Brunner at the Bicester factory not far from Silverstone.

1. Gustav Brunner, the engineer, returned to ATS last winter after a stint with Maurer. His task: to design the new D6, with a carbon fibre body, to be powered by a BMW engine. First stage: the drawing-board.

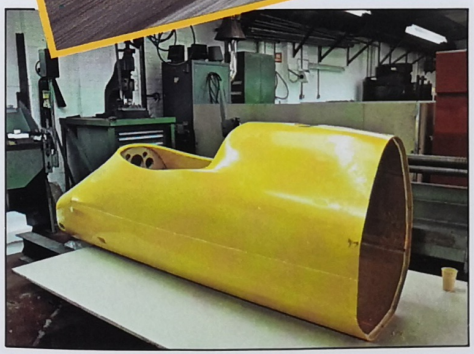
2. Once the basic design is ready, the next step is to bring that design to life; wooden moulds are made. Fibreglass ones will follow.



5. Once aerodynamic tests have been carried out on the bodywork, the side pods, with the oil and water radiators, are fitted to the model. They are made of wood, which means their shape can be easily altered.

6. After the shape of the sidepods has been decided, they are made up out of fibreglass, ready to be fitted on to the car. The shape of the sidepods is not necessarily final. It may be modified in the course of the season.

Several months separate the sketch on the drawing board from the car's first appearance on the track; and the lessons learned on the track mean that the designer has to return to the drawing-board time and again. That's Formula One for you.

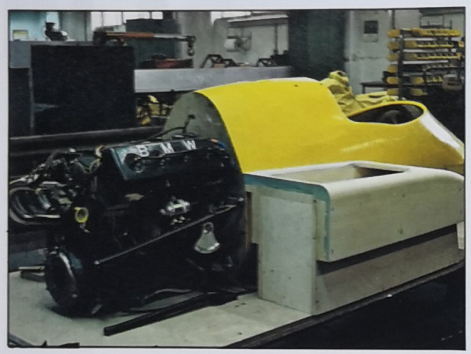


3. The definitive, life-size model of the body is complete. It's made of fibreglass and its purpose is to enable the design team to decide where the various parts should be fitted, without having to wait for the real body.

4. An example of how the fibreglass model is used; it allows the team to see very quickly where the fuel tank should be fitted. (The fuel tank itself is a model, also made of fibreglass.)

7. The parts that make up the suspension are ready to be fitted to the buck. Here, some of them are placed on the model to allow the design team to see where the mounting points on the final body should be.

8. The first carbon fibre part to be fitted is the rear wing. Carbon fibre is expensive, but can reduce the car's weight substantially. Even the side wing panels are made using this technique; several panels are made.

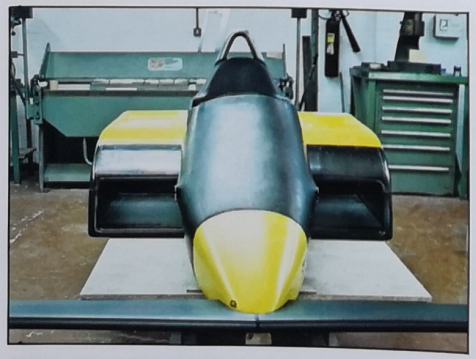


9. Two "make-believe" elements are fitted: the carbon fibre body and a four-cylinder BMW engine, which doesn't have to be in working order. Here again, it's important to look at the mounting points and the wiring.

10. When you create something as sophisticated as an F1 car, you always have to be ready to rethink your ideas. All those endless discussions could shed new light on a problem. Nothing is ever final.

13. According to Gustav Brunner, the shape of the gearbox is important; the aerodynamic efficiency of the rear part of the car depends to a great extent on how narrow the gearbox casing is. Manfred Winkelhock looks on.

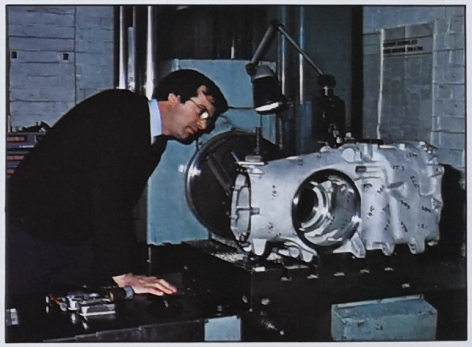
14. The carbon fibre body, built by Seger and Hoffmann, has just arrived; Manfred Winkelhock wastes no time in deciding where the safety harness should be fitted, and checks that the driver's seat has been made exactly according to plan.



17. Gradually, bits are added to the body; once the oil and water radiators have been installed, the fibreglass sidepods are fitted into place. At this stage, no-one can tell whether they will feed enough cool air to the radiators.

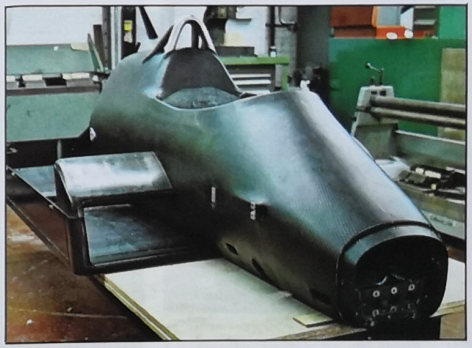
18. The bonnet can be any of a number of different shapes; here, a very long one has been fitted towards the back of the body. Other, shorter ones, will also be tried.

11. Manfred Winkelhock has, bit by bit, decided on the shape of the seat his car will have. One or two centimetres here or there can make all the difference.

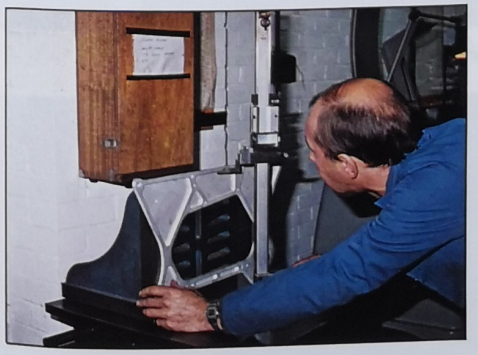


12. The gearbox of the ATS is already being manufactured at Northampton, not far from the ATS factory in Bicester. It's been designed by Gustav Brunner, who in the past, designed a specially-shaped gearbox for Maurer.

15. Unlike last season's cars, this season's have a flat bottom, which cancels out most of the ground effect. In the case of the ATS, this too is made out of carbon fibre.



16. What makes the ATS different from the other cars is the fact that its bodywork is not made of kevlar; the colour will be applied directly to the carbon fibre surface.



19. A car is made up of hundreds of different components, which have to be both robust and light. If they're robust, the car's likely to finish the race. If they're light as well, it's more likely to win.

20. Art and industry go hand in hand, sometimes. As the various components take shape, the light catches the metal filings.

Postcard from Monaco

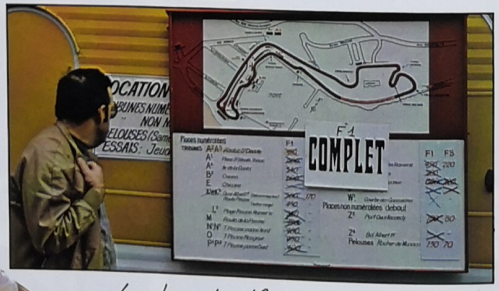
Ever seen Monte Nice ?

Trintignant, Ickx, Stewart, Cazoline : Monaco watchers

Poop or prow...

Greta Scacchi : Cannes' new starlet

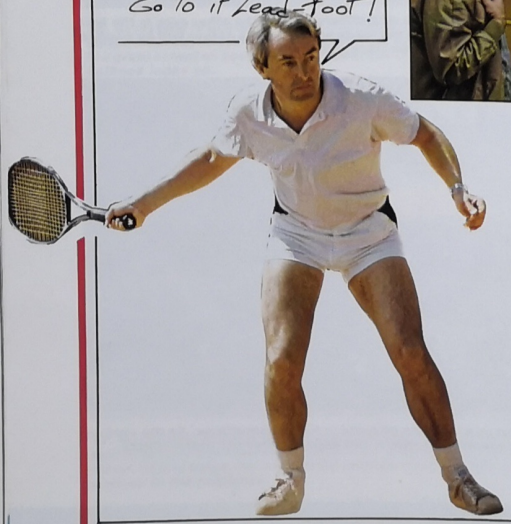
a little or a lot

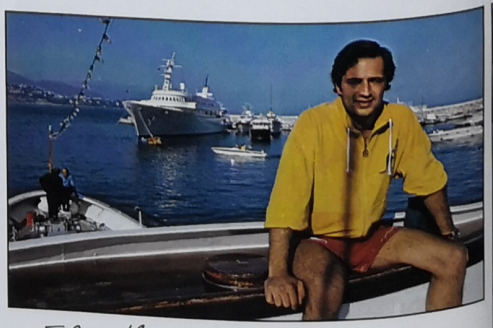


Look at those prices !

Turbot on the menu, Cosworth for pud

Take that !





Elio the sailor

Bird watchers

FISH-EYE AT RASCASSE

Up above Rascasse, the photographer gets a unique view of the Principality: the circuit becomes a snakepit, the sky-scrapers make a brilliant background and the ships in harbour are like drops of paint. The fish-eye lens creates the sublime. (photo: Autopresse)

SIDEWAYS!

Rain transforms a gluey track into a glistening and treacherous skating-rink. Those frail little cars with their great carved tyres go all over the place while, on board, their drivers, all concentration, have only two weapons with which to fight against the mad laws of skidding: a tiny steering wheel and a very light foot on the accelerator. Few were more spectacular at this game on Saturday afternoon than Marc Surer: on the nasty little bump at the Casino, he showed his mastery.
(photo: B. Asset)

GAMBLERS' GREEN

You don't often get this sort of view, but here's Nelson Piquet's Brabham-BMW exploding up the Sainte Dévote and attacking Massenet on the inside. Behind, a sheer wall of chlorophyll and enough palms, almost, to make you forget that Monaco's all concrete. No laurel to match the laurels garnered by the Brazilian, who now leads the championship with 21 points.

THE RIGHT TOUCH

Driving a Formula One car on the narrow, snaking circuit at Monaco calls for plenty of skill. The slightest mistake inevitably means a brush with the armco. Things can get even stickier if there's a high-powered turbo on your tail. Arnoux and Tambay made no mistakes during practice. It was different when it came to the real thing. (photos: DPPI)

YOU WOULDN'T BELIEVE

"The tyres were half dead when I put in my time — you wouldn't believe the understeering — and when I came out of The Casino, I was completely sideways. Let's not even mention the heat..."
A sort of comic-strip dialogue between Michele Alboreto and Danny Sullivan, the talented Italian explaining with a true Mediterranean gesture the brutality of his green Tyrrell when pushed to the limit. During the race, Michele quit before even doing a lap, but Danny saved the honours by marking his first championship points.
(photos: B. Asset)

THE TOY SHOP

Monaco is a mixture: of blue beauty, of rich prizes and pricey yachts, of concrete and stands full of passion and spectators. You can survive it in one of two ways: at ground level, where the cars go by with a hellish whine; or looking at it from above and away, to take it all in... Formula One cars, if you take the latter view, are just toys...
(Photo: First Line)

THE ART BIN

It's never been a disagreeable task to sit in a Williams cockpit. These days, the ritual gesture has a whole new dimension: the livery sets the eye aflame. For Jacques Laffite, Monaco was no rosy race: frustrated in practice, he had six points to hand when his race ended too early. Maybe Spa will provide him with the kind of sky he deserves... (Photos: B. Asset, First Line)

THE LAST LITTLE INCH

Taking it the quick way—the shortest distance between two points—is the way to make time when you need it. It seems simple. But sometimes it is difficult to do. Andrea de Cesaris is no doubting Thomas: the posters are there, but his Alfa Romeo goes by without so much as raising a breeze. (Photo: DPPI)

EXTRA, EXTRA

MCLAREN MALAISE

"It's a disaster. It's always a disaster when you don't qualify." John Watson was talking prior to the final qualifying session at Monaco. Currently he was a non-qualifier. It was down to this final qualifying session for him to get onto the grid. He looked to the overcast skies. If it rained... And it did. Neither he nor McLaren teammate Niki Lauda qualified. It was, as he had said, a disaster.

You could say that it had been on the cards for some time. After all, when John Watson and Niki Lauda finished first and second at Long Beach, they had started from way back in 22nd and 23rd spots on the grid. At Imola, Watson had finished fifth from 24th on the grid. As some clairvoyant said then: *"Ron Dennis had better watch out. His drivers can't start 23rd on the grid at Monaco and finish in the points. They only start 20 cars there..."* And the McLarens, that day in Monaco, were not among them.

So what has been going wrong with McLarens qualifying? Their grid positions usually have absolutely no bearing on their finishing positions.

Quite simply, the reason is those big black round things supplied by Michelin. The McLarens are getting no heat into them and therefore they are giving no grip. This is true of practice more than on race tyres. For instance, during the second session at Monaco, Lauda's tyres showed only 40° Centigrade instead of the working temperature of 80°. But while McLaren obviously have this problem why is it that Renault, Brabham and Ligier do not have similar problems with theirs?

Let John Barnard, McLaren's chief designer, explain. *"A turbo can run more downforce than us because it has more power to push the wings through air. But it isn't solely a matter of pushing the car onto the ground to use the tyres. The car also has to load its tyres. We tried to use our tyres on Thursday by changing the suspension set-up, but I think we went the wrong way."*

After the first practice session on Thursday, the McLarens were 22nd and 23rd on the grid. *"It isn't Michelin's fault or ours,"* said McLaren's Creighton Brown. *"It's just that at present, we don't go well together. The fact is that Michelin tyres are made for turbos, they do most of their testing with Renault."*

That left a question begging. If that was the case, why were Ligier, using a Cosworth like McLaren, ninth (Jarier) and 18th (Boesel) on the grid when McLarens were outside the top twenty. Michelin answered that one quite simply: the Ligiers have their weight distribution biased heavily to the rear, whereas McLaren's are much more biased to the front.

So after Thursday's qualifying, the McLaren drivers weren't happy, and they had completely forgotten that only 20 cars would start at Monaco. That came as nasty after-shock. Michelin, meanwhile, were reacting fast. During recent testing at Michelin's Clermont-Ferrand test track, they had found a tyre that suited the McLaren well, but hadn't yet been put into production. So a few sets were rushed through and flown to Monaco ready for Saturday morning's practice. In conjunction with one or two alterations to the set-up, the new tyres were tried on Saturday morning, and there was an immediate improvement. Lauda was 11th fastest, and Watson was 13th fastest, their times being good enough for seventh and 12th on Thursday's provisional grid. A large wing was also tested, but abandoned after a couple of laps.

So as the unofficial session ended, heads began to turn skywards. Would it rain? It was certainly very overcast and cool. Despite the obvious pressure to do well at this race where Marlboro celebrate their motor racing involvement so extensively, Ron Dennis could still joke. When an aerobatic plane began to weave around the sky, he claimed that it was a Ligier-sponsored attempt to make it rain by spraying salt.

Perhaps he shouldn't have joked. With just under an hour to go, large spots of rain began to fall. Twenty minutes later, it began to rain harder. When one of the McLaren mechanics started their large Ebel clock at the start of practice, it was easing up, but the track was damp and it showed no signs of drying. In the pits, Wattle chatted with Pink Floyd drummer Nick Mason. Niki joked with mechanics and journalists. After ten minutes, the two cars went out on wet tyres. Twenty minutes later, the track was still damp. *"We're just messing about now,"* admitted McLaren director Creighton Brown, *"there's nothing else to do."*

It never dried out. At the end, a very disappointed John Barnard admitted that *"there's a problem in the car somewhere which affects John more than Niki. No, I don't think these new tyres constitute the light at the end of the tunnel. There is a problem in the car."* Did he blame the drivers at all? *"Well, Niki did have a physical problem with cramp on Thursday afternoon and admitted that he could have gone faster, but that's all."*

So for the first time in his career, Niki Lauda had failed to qualify for a race. He headed for Ibiza. For Watson, it was his second non-qualification at Monaco, the first in 1980. But with his reputation as a street racer, it was doubly disappointing. *"And this was a race that was important for Cosworth runners to pick up points,"* he added. *"We could have done with the points here."*

So it was left to the McLaren men to console themselves. After all, they kept saying, when Nelson Piquet failed to qualify at Detroit last year, he went on to win the next race at Montreal...

Bob Constanduros

EXTRA, EXTRA

DAWN FIRING SQUAD

It was eight o'clock on Thursday morning, the appointed hour for the pre-qualifying session. Monaco was still slumbering as five men prepared for battle. Only three of them would go through. Having failed to make the points last year, there was nothing for it, but for March, Toleman and Theodore to fight it out amongst themselves, like duellists on some dewy field at dawn. The other teams, meanwhile, had little cause to worry and busied themselves in the pits. Osella, however surprising it may seem, escaped having to prequalify. Remember Jarier's fourth at Imola last year?

Cecotto, who had never before raced at Monaco, and Salazar, seemed the likely victims. Warwick and Giacomelli appeared to be taking the prospect of having to prequalify in their stride. But what was to follow was to prove once again that there is no logic in Formula One. After six laps, Guerrero's hopes were dashed: his transmission broke on the approach to The Casino. The Colombian returned to the pits bare-headed. Disappointment was written all over his face. At that moment, Teddy Yip must have regretted the fact that he had no spare. But there was more disappointment to come.

As Giacomelli, Cecotto and Salazar completed lap after lap, Warwick had to return to the pits. A turbo had gone. He went out again in the spare. With half an hour of the session to go, Cecotto's car struck the armco in the tunnel, just when things seemed to be going without a hitch. He had set the second fastest time so far after Giacomelli, who was way out in front. He too, walked back to the pits and sat down looking utterly dejected, on a toolbox, although for him, all was not lost.

But Warwick was in trouble. He came into the pits again, with a faulty front suspension. He climbed out of the cockpit and waited while his mechanics swiftly fitted qualifying tyres on Giacomelli's Toleman.

The serenity that had reigned over the British team just a short while before, evaporated, and doubt set in. Warwick paced up and down nervously, mumbling under his helmet.

It was all in stark contrast with the jubilation among the March team: Salazar had just clocked the second fastest time after Giacomelli, and his place was assured. It was a bitter blow for Cecotto, as he watched Warwick return to the track. There were now just five minutes left. But the suspense was cut short.

In the first of his two timed laps, Warwick suceeded by a matter of a few tenths of a second, in pushing the Venezuelan down into fourth place. The lack of a spare cost the Theodore team dear. Monaco, for them, lasted just a single hour. Guerrero tried to be philosophical about it, but clearly felt that he was to blame. *"It's my fault. I didn't think the circuit would be so difficult. I only lost concentration for a moment, but it was too late. I'd hit the armco."*

At March, the scene was very different. Salazar, all smiles, was congratulated by his pretty girfriend and by his teammate Schlesser. Relief was the order of the day for the Toleman team, which had just managed to avoid disaster. It wouldn't have taken much for Warwick to have lost before he had really started. Thoughts inevitably turned to Osella. Was it really fair?

Xavier Chimits

A FEW PROBLEMS

The little man had looked safe as houses. On Thursday he had registered pole position; on Saturday, he sat with his team putting away a handsome leg of lamb and some nice roasties while outside the rain fell... and fell and fell. The man who had said, *"I'll probably have to go out there on Saturday and defend my pole position, and as the track always seems to get better as practice goes on, it may not be an easy job,"* was now sitting pretty. Nothing to defend.

That was Saturday. The picture was rosy. Comes Sunday. The sky dawns fine. Rising early, Alain would have seen a fine blue sky. By ten o'clock, however, the picture had changed. Clouds were building up to the west. By noon, it was spotting rain. By two, it had rained. By three, with the race a half hour away, big decisions had to be taken. Should the Renault go out on slicks or on wets? Let's hear Alain on the subject: *"The fact is that the turbo engine produces such power that the wheels are much more inclined to spin on a greasy surface than they are with a normal, aspirated engine. You can look for mysteries, but that was the reason why we went out on rain tyres: we played it safe and, in the event, we were wrong. Everyone agreed."*

That is, Jack followed Jill right up the Hill. The big turbo brigades looked over each others' shoulders and decided that if X was going out on wets, so should Y, and Z, and so on.

But no one could say the little man, when he realized the mistake, and knew that Keke was past him and flying, and that the skies were if not clearing, at least not dumping rain, did not drive a hell of a race. He changed his tyres on lap seven and from there on drove a tough, grainy race. But one not without problems, for suddenly he found himself without a fourth gear. *"At Monaco, that's not easy. I couldn't find fourth; it just wasn't there."* Well, the result was not entirely displeasing. A third place, even if it was behind his fellow-leader in the world championship, never hurts. As Alain said: *"A championship is won by the greatest number of points. I can't complain. We made a decision which could well have been proven right and left egg on the faces of those who went out on slicks. Luck always plays its part and I'm there not to win every race, but to win the championship. Given the circumstances, I am satisfied."*

Better than that, Prost looked pleased. It was he who sprayed the champagne with the most abandon.

Keith Botsford

Cockpits

by Giorgio Piola and Didier Braillon

ALFA ROMEO - EURORACING

182T/02: Andrea de Cesaris (I)
182T/04: Mauro Baldi (I)
182T/01: Spare

The Autodelta V8 engine having problems at low revs, a new by-pass valve was installed between the waste-gate and the air manifold. As the driver lifts off the accelerator, the valve opens and the pressure remaining in the intercoolers allows the turbines in the turbocompressors to continue rotating instead of coming to a halt; when pressure is reapplied on the accelerator, they revert to their maximum revs much faster. The turbines are of a new type, the old ones having shown weaknesses in the shaft which tended to bend under stress. A final novelty: a new rear wing giving greater downforce.

ATS-BMW

D6/02: Manfred Winkelhock (D)
D6/01: Spare

Gustav Brunner had hoped to present a new D6 with a different rear end incorporating a new heat-exchanger and a revised exhaust system, but BMW lacked the time to make the changes. The only modification mechanically was an experimental electronically-controlled injection system. Aerodynamically, the D6 used a rear wing based closely on the Ferrari wing for this street circuit; three reinforcing rods assured its stability.

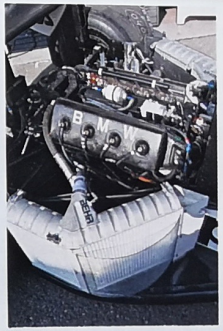
ARROWS-COSWORTH

A6/2: Marc Surer (CH)
A6/3: Chico Serra (BR)
A6/1: Spare

The A6 have a three piece rear wing giving greater downforce. Two or three races from now, Arrows will have two new chassis; they will be of identical construction, but will differ in a great number of details.

BRABHAM-BMW

BT52/3: Nelson Piquet (Br)
BT52/4: Riccardo Patrese (I)
BT52/2: Spare



The BT52/4 which Patrese damaged at Imola was repaired and Gordon Murray added that if the car hadn't been built to those specifications, it would have been a total write-off. As we explained in the issue for the French GP, the chassis is in three separate sections and only the forward section, cast very robustly and controlling the whole front end, had to be replaced. The spare had carbon fibre disc brakes and was the only car so equipped at Monaco, the rest of the constructors having given up on them for this race. The BMW engines were equipped with considerably longer flared injection tubes to assist flexibility at low revs; this led to a cutting out of the bodywork around the air intakes. The BT52 had stronger half drive-shafts than those used in practice.

FERRARI

126C2/065: Patrick Tambay (F)
126C2/064: René Arnoux (F)
126C2/063: Tambay Spare
126C2/062: Arnoux Spare

A last major modification, kept secret, is the presence in the left side of the cockpit of a handle controlling a small pump on the engine. Depending on who you talk to, drivers or engineers from Ferrari, or outside engineers, this is either a manual device to control the richness of the fuel mix, a device to prevent vapour-lock or an interruptor to the injection system.

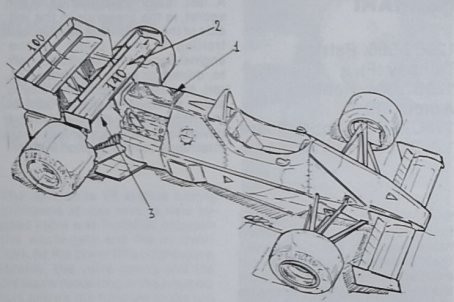
SEFAC is the only team to boast of four cars and all of them have been heavily modified. Aerodynamically, their underwings have been cut away at the rear and now finish at the half drive-sharfts; the engine cover has been shortened to deal with the heat problems encountered at Imola. Mechanically, the by-pass valve which regulates the turbo boost has been changed. The oil radiator for the gear-box, which is cooled by a double flexible pipe emerging from the left extremity of the engine cover has been moved while a similar double pipe, placed on the right, carries air to the battery and the electronic black box.

LOTUS-RENAULT AND COSWORTH

92T/1: Elio de Angelis (I)
92/10: Nigel Mansell (GB)
93T/2: de Angelis Spare
92/5: Mansell Spare

The car damaged when Mansell went off the track at Imola had been repaired and Thursday the Lotus appeared with the same short underwings they used at the last grand prix except for the comeback of the shorter wheelbase used for street races. Saturday, the aerodynamics of the rear end had been modified with longer underwings and wing side-panels that extended further down, the latter being discarded in the Saturday rain in favour of the double wing tried out at Brands Hatch, which was duly tested. The front-end had also been reworked with smaller hubs to make way for the 13-inch rims for the new Pirellis. Both 92 used single-caliper rear disc brakes.

Cockpits



LIGIER-COSWORTH

JS21/04: Jean-Pierre Jarier (F)
JS21/03: Raul Boesel (BR)
JS21/02: Spare

1. New air-box, without air intakes.
2. Forward second wing conforming to the maximum width of 140 cm to complement the traditional 100 cm wing.
3. Upper part of the rear end underbody.

Ligier did some testing on the little Michelin circuit at Clermont Ferrand to compare the oil-based hydraulic system to the traditional springs, which are only 1.7 kilos lighter. The three JS21 appeared at Monaco with the usual oil-based system, which would seem to give an advantage at Monaco. To improve grip, the second forward rear wing, briefly tested at Rio, was mounted on both cars. Finally, a flat engine cover without air intakes was installed. Boesel had a brush and had to qualify in the spare on Thursday; he also used the spare Saturday afternoon.

MCLAREN-COSWORTH

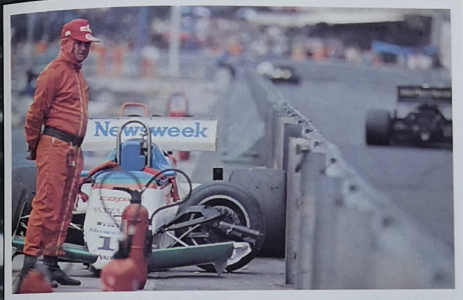
MP4-IC/08: John Watson (GB)
MP4-IC/07: Niki Lauda (A)
MP4-IC/05: Spare

Watson had a new chassis, identical to its predecessors. The next important modifications will be introduced in Canada. Lauda's MP4-IC/07 had been repaired after its excursion at Imola and Mc Laren tested its Michelins at Clermont-Ferrand before coming to Monaco. The major problem with the red-and-white cars is that their aerodynamics give them very little down thrust in the rear; this gives them problems with warming up their tyres. Both were unqualified on Thursday. Somewhat surprisingly, Ron Dennis' team, unlike his rivals, made no effort to introduce an extra-large rear wing: unless one excludes the triple wing tried out by Watson, unsuccessfully, on Saturday morning. The carbon fibre disc brakes, having given a number of problems at Imola, were not in use at Monaco.

OSELLA-COSWORTH AND ALFA ROMEO

FA1D/01: Corrado Fabi (I)
FA1E/01: Piercarlo Ghinzani (I)
FA1E/02: Spare

All three cars carried a second rear wing in carbon fibre, following the Toleman notion since adopted by Ligier. The FA1E lost 37 kilos since Imola thanks to bodywork in Kevlar instead of aluminium; its exhaust system has also been redesigned with one pipe passing over the suspension and the other beneath. The new V12 car is now announced for Detroit and Osella has the green light from Alfa Romeo to test at Balocco as often as it wishes. The two FA1D had short underwings, which took another 1.7 kilos off and the lightest Osella now weighs 547 kilos. Neither Fabi nor Ghinzani, who was ill, were able to qualify.



RAM MARCH-COSWORTH

RAM01/3: Eliseo Salazar (RCH)
RAM01/2: Spare

Nothing new on this car in which Nelson Piquet had tested at Ricard to do some quick setting-up. He had registered a 1'10"10 on the short circuit. Salazar was unable to qualify and damaged his car during untimed practice on Saturday morning.

TOLEMAN-HART

TG183B/02: Derek Warwick (GB)
TG183B/03: Bruno Giacomelli (I)
TG183B/01: Spare

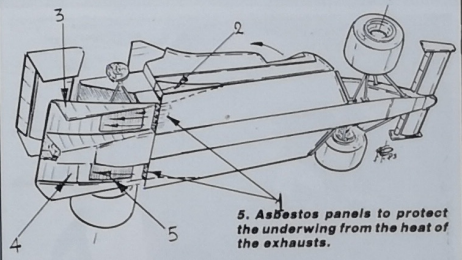
Warwick's car had been repaired since he went off the track at Imola and all three Tolemans had been modified to allow for a quick refuelling stop, which was not of course allowed at Monaco. The front suspensions have been altered to accomodate the 13-inch rims for the new Pirellis and the rear-wings were three-piece. The downforce at the front has been increased thanks to horizontal flaps running along the outer surface of the streamlining. Warwick tested a Hart engine with double parking and Giacomelli did not qualify with his Thursday time.

RENAULT

RE40/03: Alain Prost (F)
RE40/02: Eddie Cheever (USA)
RE40/01: Spare

Both cars had underwings greatly extended to the rear and ending exactly below the trailing edge of the wing. This configuration more or less resembled that adopted by Alfa Romeo. The underwings contain the suspensions and are crossed by new straight exhausts with horizontal outlets; there are four apertures on either side: in short, one for each cylinder plus one for the waste-gate. This innovation, besides helping the V6 at low revs, also helps lower the heat on the rear tyres, which were formely close to the outlets; it also helps the aerodynamics because the flow of air under the rear wing is undisturbed.

1. The eight exhaust pipe outlets (six for the cylinders and two for the waste-gate); they emerge horizontally at ground level.
2. Underbody of the drive wheels; the upper part formerly accommodated the exhaust outlets.
3. The very long, one-piece underwing which ends at the trailing edge of the rear wing.
4. The section of the underwing producing downforce is very long.



5. Asbestos panels to protect the underwing from the heat of the exhausts.

Cockpits

THEODORE-COSWORTH

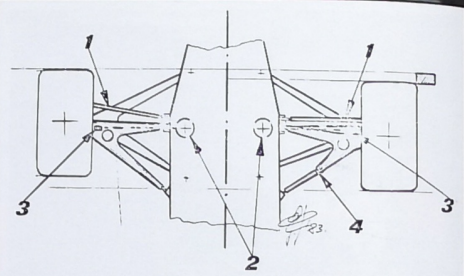
183/16: Roberto Guerrero (COL)
183/18: Johnny Cecotto (V)

No spare car for the Theodores. Guerrero, who crashed at Imola, had to go out in the former spare until his 183/17 is repaired, which should be by Spa. The lack of a spare cost both drivers their qualifications on Thursday morning, Guerrero breaking his gear-box and Cecotto going off the track.

WILLIAMS-COSWORTH

FW08C/09: Keke Rosberg (SF)
FW08C/08: Jacques Laffite (F)
FW08C/07: Spare

Thursday, Williams tried out small disc brakes radially-cooled as in F2; on Saturday he reverted to the usual discs. Both versions have single-calipers at the rear. To keep the engine temperature down, two oil radiators were mounted. Williams was one of the few teams not to mount a "Monaco" rear wing. Where last year, Williams had brought four cars, there were only three this year: the FW08C/06, the development car, was kept in England.

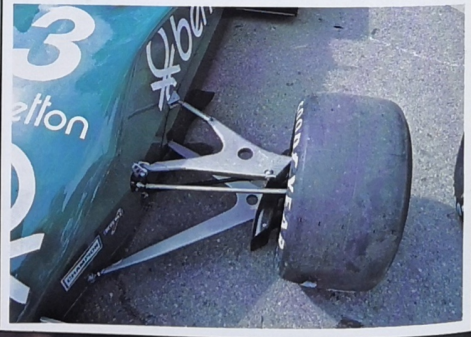


TYRRELL-COSWORTH

011/4: Michele Alboreto (I)
011/5: Danny Sullivan (USA)
011/6: Spare

Sullivan's car had been repaired since his spin at Imola and Tyrrell had received three Cosworth DFYs. Alboreto's car had a new front suspension on a shorter wheelbase, with a correspondingly smaller turning radius and improved handling on entering curves.

To the left, the old suspension; on the right, the new one on its shorter wheelbase. In (1) the small connecting-rods of the steering mechanism, whose angle is changed. In (2) the shock absorbers, unchanged in position; and (3) the pullrod small connecting rods. In (4) it can be noted that the triangle has been cut and linked to a small connecting-rod fixed to the chassis by an unchanged anchorage; the pressures of the car all concentrated at this point and the new suspension was not used during the race because of the risk of breakage beyond fifteen laps.



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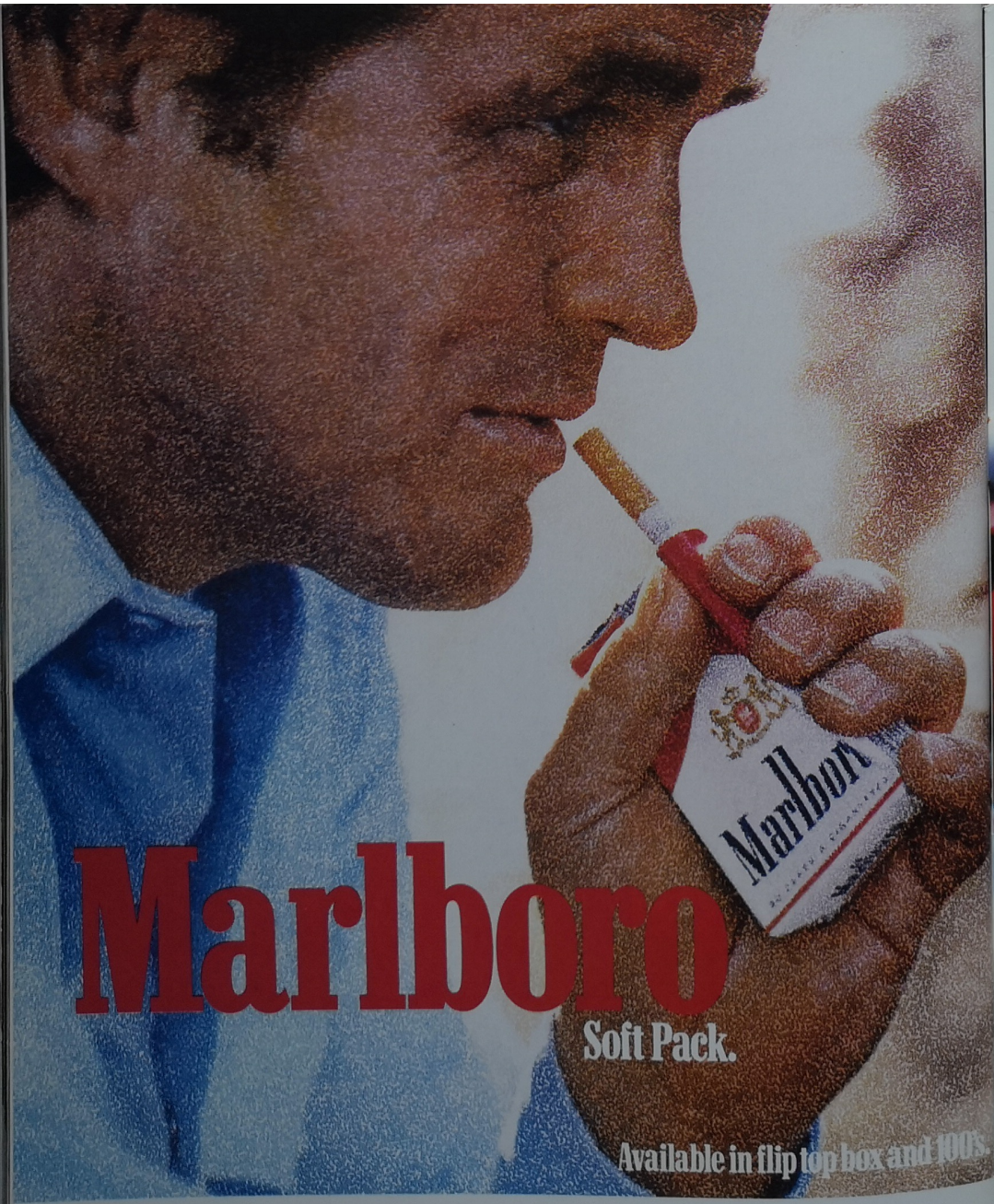

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